INFORMANT: Alonzo Hall
INTERVIEWER: Robert Hilderbrand
DATE: 18 MAY 1999

SB: [The interviewer Robert Hilderbrand]
TP: [The informant Alonzo Hall]

[Beginning of side one, tape one]
[Interview begins]

RH: My name is Robert Hilderbrand, conducting an interview with Al Hall. This is 18th May 1999 in Rapid City, South Dakota, part of the National Parks Service Missile Oral History Project. Uh, Al will you start by saying your full name, and your last rank, and your unit assignment, and sort of general duty assignment.

AH: Okay. My name is Alonzo Hall. The rank I retired at was Senior Master Sergeant in the United States Air Force. The unit I was assigned to, uh, actually served, was the 44th Missile Maintenance Squadron, uh, 44th Strategic Missile Wing, uh, 44th Missile Wing.

RH: Talk about the jobs you held. Your duties, your mission. I know you held a number of different jobs, but the things that stand out most in your mind that, that you did.

AH: Uh, when I first arrived at Ellsworth, right after tech school in September of '75, um, I was assigned to a shop called the Site Security Maintenance Shop, or the 'smut' shop. And, uh, what we did, the primary job of that particular section was to maintain security systems on the missile sites. Um, missile sites had radar antennas and, and intrusion sensors, that, that was our primary job, of making sure they worked and functioned properly. Also we took care of what they called 'personal access' system, the large launcher, the door to get in to do maintenance, uh, the ladder that's connected to the equipment, the B security plug that goes up and down. Um, that was our primary job, making sure everything worked on a day-to-day. From there, uh, I went into a section called the team training branch. In that particular area, we took airmen, as myself when I first came in, with the basic training of the system, and then refined it, so they knew the ins and outs and how-tos, and where to go find the information and some tricks of the trade. Uh, after, uh, doing the training area for awhile, um, I guess there were some folks that saw I had some additional talent and they decided to take me into the technical engineering side of the house. That's a unique experience because there you're working intimately with officers, that are pretty much engineers, electrical engineers, mechanical engineers. And we complement them with our practical knowledge and expertise in the field, and, and they take their engineering knowledge, and

we meld them together to come up with solutions. We work in a realm where if, pretty much everything you do is in a book, for safety reasons. You, when you're working with that type of a weapons system you just can't arbitrarily, uh, take wires apart, or hammer this or that, because you, you know, there is a certain thing out there you have to take care of. Um, and what we'd do is that, working with the engineers, if there was a problem that arises, and it's not covered in the book, that's where we step in as a group and try to resolve that problem. A lot of the things we, we've resolved are not, you know, weren't even found in the books. Um, we've written new procedures because of what we'd done, to improve the system, uh, to make it more safe.

RH: Did you always follow the book?

AH: As a maintenance technician, yes. Uh, there are sometimes where you can vary from the book, but that is only done if you have an intimate knowledge of the weapon system that you're working with. And even then that's kind of questionable, that's where if you're not sure, you follow the book to the letter. Uh, if, if there's a, if it says "take a cable off, this particular cable here off first," and you know you have to get other cables off, and then by knowing the system you can go ahead and vary around it. You're still accomplishing what you've gotta do, but you can make a few changes here and there. That's nothing critical, because normally the equipment's powered off anyway.

RH: Could the book be changed?

AH: Yes, the book can be changed and we had what we called AFFTA 22s, or Air Force Form Technical Order 22, which is a formal change for the tech orders that we use in the field. Uh, anybody, safety, improved maintenance procedures, whatever, if you are out there and you see that there's a better way to do it, you fill out the form and then you submit it. And usually the supervisor will look at it first, because he or she has a lot of experience in the field working with those pieces of equipment, and say, "yeah, it's a good idea." And then from there it would go up to the quality assurance, local quality assurance, or quality control, at the time, that's what it was called. And the quality control folks would evaluate it and say "yes, it's a good idea." Then they would forward it on, uh, to the, what we called the numbered Air Force, just before the command level. And the numbered Air Force quality assurance or quality control people, would look at it and say 'yes, that's a good idea.' Then they would forward it to, what they called, the 3901st SMES, which was the Strategic Missile Evaluation Squadron, based out in Vandenberg Air Force Base, in California. Those are quote, unquote, they're supposed to be well knowledged and versed on everything. And they have, they can get to resources that a normal maintenance technician can't get to, uh, the

actual Boeing manufacturer, or Sylvania. And then they'll look at it and say "yes, this is a good idea" and they'll go ahead and implement it. Now if it's a safety issue and they realize that it's very important, that change will come out, uh, in what they call a pink page and usually it's within, uh, within a week. And they'll post that page in a tech order, and every maintenance technician going out to the field will have to review that, uh, that uh, particular change. What is also nice added feature about that, is that if a change results in a savings of any money or anything, the individual that submitted the change will usually get some sort of monetary reward for that.

RH: Did any of that ever happen to you personally?

AH: Yes it has. Um, as an example, working in the "smut" shop, or site security maintenance shop, uh, somebody wrote the tech order says, we have this personal access ladder that slides up and down. It's like an extension ladder, except it's attached, attached, affixed to the top of the personal access hole and then to the B-plug or the secondary door that lowers down and that's where you climb in to do your maintenance. Well, the way the tech order is written, it says you go ahead and raise the ladder sections, and allow it to fall on its own weight. Okay, so that means you grab it, you raise it, and you let go. While as you're doing that, following the book, it actually pings the bottom of the ladder every time you drop it. So every time somebody goes out and performs these procedures, slowly but surely it actually mashes the bottom of the ladder. Going down is not a problem, because you have this seven ton door being pulled down. The ladder will come out, no problem. It stretches out. When you raise the door, that's where the problems come in. Because the door and the motor assembly that raises that door is a lot more powerful and a lot more stronger than the ladder. You know the ladder will all of the sudden start to, we call it, pretzel, bend, because the metal was actually being gouged because the bottoms were all folded in. And so, a simple little change, I said, basically, hold the ladder, and lower the ladder by its own weight, you know? They saw that and they realized that all these years that this has been going on, and we've been changing ladders is, you know, "wake up!" So in result they rewarded me four hundred dollars on that. So it was a little simple change. So, you know, what I always told the maintenance technicians out there when I was an instructor was never assume anything, that it's all been figured out. Everything is constantly evolving. Look at everything you're doing, uh, not only to improve, uh, not only to get a possible monetary reward, but to improve the maintenance. If there's a better way of doing it, then let's do it.

RH: Which must also have been, sort of, trying to drive into their heads the need to follow the book. It's kind of a mixed message.

AH: It is a mixed message. We, we will, as instructors, we tell them, this is what we're going to do and this is how we're going to do it. Our number one goal is to make sure they understand the book. That is our number one goal. Now, the second goal is to make sure the always follow the book. But, if they understand how the weapon system is constructed, and how everything interacts, there're some things you can do. You can call it deviating, alright, from the letter of the book. But if you understand the weapon system you know you're not going to do any damage. You know that if you're working on the personal access system, you're not going to launch the missile. Okay?

RH: I guess in a way, that's inherent in all military procedures. That need for discipline and following the book. And yet we pride ourselves as, as a military, in having individuals who can take individual initiative and think of better ways to solve things. And we think, we think that makes it better. So I guess, this is kind of a, part of that same problem.

AH: There is, you know, in the weapon system itself, and I'll call it the weapon system, because that's what it is, uh, it is, there is different levels of freedom. It's never spoken that way, but it really is. If you work on the security system you can't fudge around that. Sure again, it will not launch the missile or cause anything serious to happen. But the sites are unmanned. The security system must be calibrated and maintained in such a way that it affords a protection to the resource that's out there. No matter what. Then, the next thing is, is like, uh, simple mechanical hardware stuff. Um, if you're, if you use a different type of wrench, unless the book specifically calls for it, as long as it gets the job done, it gets the job done, you know? You don't want to substitute screws, nuts and bolts, because each one was designed for a specific reason, for stress, for tension, for sheer strength. Uh, again, as instructors, we'd tell our students, "you need to look and understand each job you're doing and how it relates or how it affects other parts of the system out there."

RH: How seriously did the people who worked out there, the people you worked with, take their jobs?

AH: I think it's, it's [laughs] really strange. Um, when you first start out. most folks take it seriously because it's something totally new to them. And then as time goes on, we become a little complacent. I'm not saying sloppy, but we become complacent from the standpoint, you know what you're working on, you know your job very well, uh, you're very confident. And then, as you go on and move up in rank, you, you pick up this seriousness again. And for some of us, um, you realize at, at the time, with the current world situation, uh, this was our deterrence. Um, sometimes you get the, the guard says "I'm just walking the fence." You're doing more than just walking the fence, you know? You're

protecting us while we're doing maintenance here. We don't know what's going to happen because we're out there alone. Normally there was no more than maybe three or four people out at the silo at any given time. And then you're talking, from the nearest response force, anywhere from ten to fifteen miles away. And I think as I said, as time went on you, you realized what you were doing. I think I realized it more after I retired from the service what we contributed. Because to us a lot of it just became a day-to-day job, you know? Some folks went to work, you know, to the police department, some folks are firemen, some folks are doctors, and some folks are nurses. But what we did, you can't find anywhere. And then that struck home. It says "you know what? There's nobody else doing this. Or capable of doing this."

RH: Was there, sort of an unusual level of motivation and seriousness that came because of your awareness, that you were working on the system, this weapon system, that was protecting the country?

AH: I, I think that's, that's the thing, when you hear about it. And missiles was kind of unique. When we did not have a bird on alert, uh, it's not like an airplane. An airplane, they give an alert level of seventy-five percent. We had to maintain a ninety-eight percent alert rate. And …

RH: What does that mean exactly, ninety-eight percent alert?

AH: Ninety-eight percent of our force must be on alert, ready to be launched at, at the moment's notice. When, when the President gives the order, ninety-eight percent will be ready to go.

RH: Does that mean that you usually knew that there were a half dozen missiles that were not capable of being fired?

AH: Yes. We, uh, I, you gain more … As a normal maintenance troop you don't know that, okay? The only thing that you know is the alert rate. Because that is published, that's the goal, you know? Actually, at ninety-eight percent people start getting fired, okay? Because that's minimum standards. Um, we try to achieve at least ninety-nine, uh, or higher alert rates. That's our goal. At the wing here at Ellsworth we had at one time achieved a record rate of ninety-nine point seven percent. Out of a hundred and fifty missiles, ninety-nine point seven percent were ready to launch, if we got the orders to go. Um…

RH: That'd be all but one.

AH: All but one. And that one is a trainer. And that is it. But that trainer we had in our, in our, uh, uh…

RH: So really all the ones that you were supposed to be, have available to launch were available.

AH: Yes.

RH: But in the event that you had another one, or two or three that were not ready to launch, what would have been the factor that made it unable to launch?

AH: Normally, what happens if for, for the most part, was, was, uh, our guidance systems. What would happen is, is that every night a maintenance, not a maintenance team, but a, uh, launch crew would run calibration programs to make sure that the sorties were targeted properly. And when they run a calibration, basically, the gyro assembly, we called, does a dump. In other words it flips, moves around and then, after everything is done, it's supposed to reposition itself where it is supposed to be. If it does it passes, if it doesn't, it basically goes into a, a no-go. A shut-down. And the guidance system will shut down. And basically, that sorties' off alert. And then our MMT folks, the Missile Maintenance Teams, will go out there and replace the guidance section.

RH: Would they go the next day? Or at night?

AH: Uh, it, we, it's kind of evolved. When it first began, if a sortie went down in the middle of the night, an MMT team would be ready to roll within the next two hours to replace that. As time went on and people became more and more security conscious, uh, not that they weren't before, they realized that we can afford, we want to wait until we get daylight. Not only to afford safety in driving, because most folks, you know, they don't work too well when they get up at two o'clock in the morning and have to drive out to the missile field. So what they do is, is they said "okay, we're going to delay it. At first light, four o'clock, MMT will role out of the building," okay? And, and like I said, that's a personnel issue, as far as safety, and then also weapons system safety, and that's talking about security measures. They do not like having the launch enclosure open in, at night hours. So, unless, unless we really, really need it, uh, what they will do is delay until daylight hours.

RH: Did anyone ever take the attitude that, "well we have more than enough of these anyway?" Having a half dozen of them off line, considering the redundancy built into the system.

AH: And that, well, see that's, we've, we've had the young airmen talk about that. And, you know, so we have one or two or, you know, as big as they were, and as many as we had, why do we have to worry about it? Well, again, it's the big picture, okay? One of the jobs I was able to work in was

the job control area. I was superintendent of job control. Basically, we were the air traffic, sort of, sort of the air traffic control center for maintenance. A sortie goes down, we knew about it. We started the activities to coordinate its recovery. Um, every morning I had to send a report off, basically, to the SAC headquarters, what our alert rates are. I had to brief the colonels every morning on what our alert rates were. What kind of maintenance we were going to be doing today. Why we were doing it. Why the system failed. Um, in rolling that up, basically it comes down to we have, what we call a SIOP, a single integrated operation plan. Where at the time it included bombers, and still does, includes bombers, submarines, and land based ICBMs. And in that SIOP, everything is given a job. Everything, we have what we call a TOT, time on target, okay? Everything must be synchronized, otherwise everything starts running into each other, okay? We have a target picked for this area, this target must be removed before the other, uh, weapons can come in safely to do their job. If we fail to remove that target, then, uh, any ballistic missile systems or, uh, another ICBM, is able to launch out of that area, and possibly cause destruction on the continental United States. So that's why it was extremely important to make sure we maintained every sortie at a high alert rate so they can basically attack the targets they're supposed to attack, should the need ever arise.

RH: What happened when you had that young airman who said, "gee, now maybe we can kill everybody twice." So we have a few that aren't working? How was that dealt with?

AH: Well, we're not out to kill people. I, I know it sounds kind of strange. Most of the targets we have picked are, are other silo areas, uh, military installations, and national command authority on the other side. So, we're not out there to stir the dust around after we do the first, you know, first detonation. Uh, we want to make sure we get the command authority, the national command authority on their end. We also want to make sure that uh, we get out, take out any residual retaliatory forces that may be aimed at us.

RH: Is that what you would explain to them? Is that how that works?

AH: Yes. We actually did explain it that way. Because, you know, the thing about a lot of the airmen, is they're very intelligent. I mean, they understand what's going on. Not only that, through, when they come up through basic training and through their technical school at Chanute Air Force Base at the time, they get a thorough indoctrination as far as who, what, where, why, and how. So when we get them, uh, basically they're seeing the big picture now. They're, they're sort of on the pointy end of the, of the spear now, okay? Uh, they can see exactly what they do is extremely important. You know, you're going to get some folks that will

never, will never get the picture, the big picture. Because "I'm here for a paycheck, after four years I'm outta here." And, and we've seen those. But for the majority, uh, the screening process alone takes care of that, initially. Uh, because the background checks, uh, the, uh, as far as security wise. And the tech school alone. Now I don't know what the rate is now, but I can give you an example. When I first enlisted and, and got through basic training and went to the technical portion of my training, uh, they crammed twelve weeks of electronics, from basic circuits to digital integrated circuits, in twelve weeks. In some colleges it takes two to three years. They cram that. I started out with a class of thirty-five in the first block. There was only three of us left at the end of twelve weeks, out of the original thirty-five that I remember in my same class. Because each class they'd wash out people, and they added to the next class, to the next class, to the next class. And build it up. And so there is the weeding out process right there, from the technical standpoint, okay? And then from there you went to what they called the "sets," the actual weapons systems training itself. You took your electronic principles and then you matched up with the hardware. And from there, you know, you lost people. So, in the final process, uh, out of a class, let's say of thirty-five you end up with three. Then you end up with sets, you end up with maybe, as in sets you have twenty students. You may have ten, after that, that actually make it on. So there is a self-weeding process. "Are you determined to do this," you know?

RH: You ended up with just the most motivated people.

AH: Basically.

RH: One of the things we ran across was the, the, your motto: "aggressor beware." And, uh, we kind of wondered how much, how much did you feel that uh, you were making an important contribution to national security?

AH: I knew first hand that we're, from the standpoint, we're making, uh, we were important to national security because of the reporting procedure we had to do. And I guess I didn't really realize it in when I first started, but as time went on because the information we sent out to the command authorities. Uh, basically our alert rate is reported directly to National Command Authority. It isn't just going to some side office in the Pentagon, it is actually briefed to the President and the Secretary of Defense everyday. What is our current sortie status, today. And it was more important back then because of the tensions culture.

RH: Sure.

AH: Um, as far as, importance to me and "aggressor beware" is as basically, I always thought of the motto, I loved it. Out of all the bases I'd been to and

visited, I think ours was the best because it lets people know, um, we may not start it but we're going to finish it, you know? And it's, you know, very quiet, we just do our job, and it almost relates to the motto "don't tread on me," you know?

RH: Now did this, did this affect your daily life? I mean your day-to-day thinking of about what you did that, again, this sense of importance that you were protecting the nation and if you failed to do your job the nation might be at risk?

AH: The nation is a big thing. It's kind of, one of those things you really can't grasp. I think it brought it home to me one night, uh, when I was driving home from work. Uh, my daughter had just, she was about a month old at the time, it brought it down to the point, I hope what I'm doing will benefit her and her future. Because if the real or perceived enemy realizes that we are ready, we are willing to, you know, protect our beliefs in any way necessary, then, um, I feel that she may grow up and not have to worry about the things that I worry about. Cause I was, you know, I grew up in the sixties, you know, and the seventies, you know, when bomb shelters were out and, you know, and people were talking about, you know, World War Three is just around the corner. I feel what we did, uh, we won the Cold War without firing a shot. And, uh, that I hope what we did will allow, you know, the future generation to, to not worry about things. We kind of see that now. You know, you notice the Berlin Wall is down, and tensions are a little bit less. You know, it needs a little more work, but we were there at a time when we needed to be there. And I think we made a significant contribution, especially those of us that were involved in it. After we sit back and look at it.

RH: How real did you feel the threat was of a Soviet attack?

AH: I felt it was pretty real, because, you know, you got, you have individuals over there that, that are strong in their beliefs. And I'm strong in my beliefs. So what's the difference? You know, what is the difference? You know, the only thing that I can see is that we're not going go ahead and obliterate a country to, to populate our beliefs. We do it through other means, you know?

RH: Did you think they might do that?

AH: Well, we already knew their, their political, as far as, uh, writings and everything else wasn't really achieving much. And I think there was a sense of paranoia over there. That's the reason why they did what they did. It's paranoia. We gotta have these satellite countries to protect our main borders, you know, sacrificial countries. And to me, when you look, if you compare that to a person, you're really not sure what this individual

is capable of doing, you know? So, we feel, we felt at the time that it is was uh, uh, unpredictability of their leadership that it's easy, it would be easier for them to launch first strike.

RH: Did you feel that our deterrent system was all that was preventing them from doing that?

AH: I think so.

RH: And, and that must have put extra emphasis in your mind on the importance of the deterrent system.

AH: Um…

RH: If they ever thought that we weren't prepared.

AH: I think that's the key thing, and uh, we had uh, we had a General Akrimayov here awhile back, uh, from the Soviet, uh, military. And one of the, I hear one of the comments was that he was saying that it was probably because we were ready, um, that things eventually evolved to where they are now. Um, if it was just a, a walk through the park, and if we were, if we were not ready, if we weren't committed, it would have been a different story. Um, everybody here at Ellsworth and any other missile base, played a part, even though some folks may think it's a very small part. But all those small parts add up to something major. Everyone of us had a job to do no matter how mundane it was, but it contributed to the rest. Uh, it's, it's, you, you go out there to the missile field, you do your job, and as I said, you become complacent. But then every now and then, you stop and you think about it and you said "you know what I did today was important."

RH: You know, you said before about hoping this, that hoping what you were doing would make things better for your daughter. Did you ever worry that the opposite might be true? You know, that you were working on a system that if some crazy person or whatever ever decided to use it that she'd be dead?

AH: I had, I have enough confidence, and I still do, uh, in our National Command Authority that, a lot of folks don't realize that there are so many redundant safeguards in the system, okay? Not only from the hardware standpoint, but from the people standpoint, too. Um, some, uh, you know, granted, there's a lot of things that I'm not privy to from the people standpoint, but from the hardware standpoint, we were pretty safe. Um, and I think, if anything, you know, you know, Hollywood has really skewed the, the system. You know, "anybody can do it. Anybody can break in." Um, if only we could always tell the, you know, show people that it's not

that simple, you know? Even from the human standpoint, from the president on down, you know, there's enough safeguards there to keep that key from being turned.

RH: What about from a, from a legitimate standpoint? What I was trying to get at was that the presence of missiles on both sides--and you were a part of the force maintaining the missiles on our side--the presence of those missiles, um, made possible, uh, the destruction, devastation on a level that would, on a daily basis, could have called into question the lives of our kids. Um, did that trouble you ever? That you wished you weren't involved in something like this?

AH: I don't know. Maybe I looked at things differently. I looked at it, I looked at what we did and our missiles like policemen. Policeman has a gun. Doesn't have to use it, but you know what? If he ever does, you know, I hope he has one and I hope he has enough, uh, uh, I guess, uh, confidence in his beliefs that he had to use it. Um, so I don't …

RH: There was never a moment though when you doubted your? I mean, I understand …

AH: No. No.

RH: But when you doubted your, you know, policemen sometimes must think about the gun and while maybe you better, I don't want to have to use it, you know?

AH: Um hmm.

RH: And have second thoughts about what he's doing. And, and did you ever feelings like that?

AH: No.

RH: Okay.

AH: No. I never did.

RH: Um, were there any specific times when you thought "this could be it?"

AH: [laughs] Yeah!

RH: Maybe the missiles are going to be used now?

AH: Yeah.

RH: Um, can you talk about that?

AH: Actually it happened twice.

RH: Be specific as you can.

AH: Um, well they were both stemmed from the NORAD problems. Um, I'll never forget the first one. I think, I think it was in 19, it was in '77 or '78. And we were out in Hotel Flight, uh, which is around Union Center. And, uh, we were in, I was in the launcher with my partner and, uh, I got this, uh, uh, yell from upstairs. A guard says "hey," you know, "get on the SEN line," which is a, it's basically a communications network. And I go up there. Because downstairs you can't, there's no buzzer or bells or anything like that. So the guards say, you know, get on the SEN line. So I get on the headset and I call, you know, this is so and so. And he says this is "Captain so and so, I need to authenticate." So I get out my code page and I go in and authenticate, to verify who I am. And then he goes "Okay look, uh, I need you to prepare for EWOL launch." And I stood there, and I looked, I sat there for a second, I go, "you want to repeat that again?"

RH: Prepare for what kind of launch?

AH: EWOL launch, Emergency War Order Launch. Basically, a directive comes down from the President saying "get ready to launch," okay? Um, and we're going "okay," you know, and the old saying, uh, you train like you fight, you fight like you train came into play. And in preparing for EWOL launch, basically we moved everything that we had downstairs off the shop and on to the floor. And then, uh, secured everything else that was loose, and uh, just before I, uh, looked at my partner who was at the access shaft to climb up the ladder, "are we ready?" And he goes, "yeah." So I, then I pulled the key out. The safety control switch is the only thing that keeps the missile from launching. And, uh, I turn the key, pull the key out, and we start climbing up the ladder. I had told him what had gone on, what was, we got a call for an Emergency War Order. He kinda like looks at me and says "this has got to be a drill." I says, "I don't think so." You know, because normally you don't do this kind of game with the capsule crew, calling them. So we started climbing up the ladder and told the guard what was going on and everything. And so, um, we, part of the procedure was to raise the secondary door up, not lock it, but just raise it up, lower the personal access hatch, and then drive off the site. Keep the site in view, uh, about two thousand feet, uh, upwind or cross wind if you can. And that's just what we did. Uh, we drove up to a, basically drove off the main road, onto the dirt and got up to a little hill top to watch the site. And we sat there and, uh, waited. Um …

RH: What was going through your mind?

AH: Well, I was thinking, you know, initially to make sure, you know, our check list procedures done. You know, it was kind of ridiculous, but we wanted to make sure we had all the check list procedures done. And yeah, we did. And then the next thing I was thinking about was, was, uh, my family. And uh, well that was before I got married, well my girlfriend, future wife. And you know, basically said, "well you know, um if we go, uh, they're not going, they're not going to get untouched. They're going to get, basically, you know, we're going to hit them back. And so we waited. We waited for about an hour and a half, and then we got a call over the radio from the Flight Security Controller to proceed back on the site. And, uh, the guard authenticated with the Flight Security Controller to verify everything was good. So then we drove off the hilltop and back on to the site. I went into the soft support building and called the capsule up and authenticated with them. And, uh, him and I talked a little bit over it. He says, "yeah," you know, then they finally let us know what was going on, that a little chip failure caused all this. And, uh, and that was the end of that! But, you know, on our way home we thought about it and says, "you know what? We did what we had to do." Um, we didn't go crazy. Because most of us I think realized that if it was ever true, where would you go? You know we couldn't make it to Canada in time, you know the old saying? So we just did what we had to do. And then the second incident occurred, similar to that, but that was a, you know, it wasn't a chip failure again, but it was, uh, NORAD initiated, and it was a software problem. They were running a software test. And instead of running a software test on, on an isolated system, they did it on the main system. And the main system said "whoa," you know, there's a possible launch.

RH: Did you only know about these because you happened to be at a Launch Facility at that time?

AH: Um, I can only say yes, because that's how we knew what was going on. I mean, we found out more details about it afterwards when we got back. But, uh, there was, there was talk around, you know, because basically when something like that happens they initiate six ring recall to call people in, you know, and get them ready to, uh, to do what we have to do as far as disbursing to, uh, a classified location to recover, uh, if, if something really did happen. So …

RH: When you were sitting on that hill were you watching the, the cover?

AH: Yeah.

RH: What were you, you were thinking …

AH: Well …

RH: your first warning would be, I suppose, that that cover would blow off?

AH: Right, that the launcher closer would blow off and about two seconds later you'd see a big old explosion come out of the hole and there you go. Look up, you know.

RH: Keep your eyes on that.

AH: Oh yeah, I mean you know, you figure, I did, I mean, I don't know about my partner. He was probably, I don't know. But, uh, that's what I was watching, because you always see it in movies. You know, you see it in films, training films and everything, what it's supposed to look like. And I says "oh, we're going to find out if it really looks like that."

RH: Did it cross your mind that this could have been a first strike incoming? And that it was just barely possible you might not get your missile off? And that what might happen would be, did you look at the horizon at all? Or the sky…

AH: No.

RH: to think there could be a Soviet ICBM coming, coming down on top of us?

AH: I, you know, I figure if it's gonna happen, it's gonna happen. That was my, my mentality of it. I just kind of figured, "well why worry about it? There's nothing I can do about it anyway." The only thing that I could do is what I just did. Is to make sure that we were ready to go with our equipment.

RH: Were you hoping you weren't going to see the enclosure blow off?

AH: I don't know. You know, I never really thought about that. You know, I guess, later on, you know, you're kinda glad nothing happened, you know? But at the time I didn't think about it.

RH: At the time it was kind of exciting.

AH: Yeah. I mean, you're young, you figure "well okay, you know, I've been working all these years. You know, not years, but, you know, I've been working all this time to maintain everything. Then you stop and you think about it, after it's all over and done with. And you go, "well jees, you know, maybe it's a good thing it didn't happen." But again, I, I look at it from the standpoint, I have enough trust, I had it, well I still do, I have enough trust in our authority, national command authority that if, if it came out, that the missile actually launched, there was a specific reason for it,

you know? And by George, you know, I may be gone, but the person on the other end, receiving end is going to get it too. So, maybe it's a crude way of thinking about it, but you know.

RH: But you were probably hoping that you weren't going to die in the next few minutes.

AH: I really didn't think of that, I really didn't, you know. Because I knew I guess the moment he said "EWOL launch," that possibility was there, you know, so why dwell on it?

RH: Were there times when you remember when your unit was in advanced state of readiness, alert status?

AH: Uh, yeah.

RH: When you had feelings that, you know, again this could lead to using the missiles?

AH: You know, I guess that's where training really plays a big part, you know, I said that earlier, you train like you fight, you fight like you train. Because it becomes automatic. You do what you have to do. Uh, there's not time to think about what possible, uh, things that could happen. Once everything is all done, then comes the time when you can think about it. But until then, it's "I've gotta get this done, I've gotta get this done, this checklist is done, this recall's been done, da da da da da da. This equipment's ready to go," the whole works.

RH: Were there times when you were on an advanced state of readiness and alert status, and you knew why? Because you had some sense of what was going on in the world and you were …

AH: As a young troop, you usually don't get it right away. You get it filtered down, okay? And a lot of times you don't, sometimes you may not even hear about it until it's all over and done with, you know? Because at the time, everybody's worried about making sure everything is ready to go. Not explaining. And that's one of the inherent things about the military, you know. If there is time, we'll explain. If there's not time, just do what you've gotta do. And, that's usually how it works out, even in a higher state of alert. Uh, we would be ready, uh, and as things change, status changes occur, if there is time available then we start letting people know, as far as why we did it, um, what were the possible outcomes, and just basically go from there.

RH: Do you remember any thoughts you had afterwards though?

AH: Well, sometimes you think about it, and well that's really stupid. [Laughter] But, uh, no I, myself personally, I look at it, uh, I guess my perspective of it is I sign on for a job, uh, I'm going to do the best I can. And most of the other folks did the same thing. And if there is time to think about it, then we'll worry about it.

RH: Did you have thoughts about the quality of the weapons system that you were working on? Comparing in your own mind the Minuteman II or III, to its Soviet counterparts?

AH: Um, in the strictest comparison between us and the Soviets, um, we designed our weapons systems not only to be effective, um, but safe and I guess I hate to say it, I don't know another word to use, user friendly. [Laughter] Uh, when I say user friendly is that it's a system that you can work on without having to fear for your life, okay? Um, there's been a lot of safety designed into the system. Not only just for the system, but for the people who have to maintain it. People don't realize it, but a lot of things were designed that way. And whereas the Soviets' is whatever it takes to get this bird out of the hole--we don't care if the guy has to light the fuse! He's expendable, you know?

RH: Now, when you were talking about the key that you had in the missile during that, was that so the missile wouldn't fire while you were there?

AH: Right. Yeah, so…

RH: So the purpose of that was to protect you?

AH: Right. Um, what happens is. Do you have a kleenex?

[break]

AH: Um, about the safety control switch, or SCS key, um, again, the system was designed to protect the user, uh, as well as the system. One of the things about the safety control key was all the ordinances, the explosive devises that are in the missile, the signals and the powers to activate those devices have to go through what they call a distribution box. It's at the very end of the shock-mounted floor. And that's just what it is. It's a big steel box with, uh, relays and cables plugged into it and the SCS control, uh, switch. And what happens is when a launch signal comes down, an authorized launch signal comes down, it goes through this box and activates all the arming devices in the missile and all the explosive devices that are supposed to go off in sequence. Well, for it to do that, the safety control switch has to physically, you can actually hear it click over. Actually it slides over. It's almost like a little guillotine. It slides over. And when that happens you can't put the safety control switch key in there,

okay? Um, when the sortie is safe and you have the key in there and if the signal was to arm to launch, that key prevents the guillotine from making contact and arming all the circuits, okay? Um, as a joke, um, an unauthorized joke, we, uh, we had what they call an elevator work cage, where we put inside the launch tube to do maintenance on the missile. And we have a sump pump at the bottom of the missile. And, uh, a lot of the times we'll take the new folks out and we'll put them in the work cage, and send them down. This cage can handle only two people. And it's a long ride down in the dark hole, down to the bottom of the tube. And, um, one of the rules is that the person who is in the cage, one or the other, has to have the key. Because once you insert the key into the SCS assembly, you can pull the key out, the lock stays in the distribution box, okay? But the key has to go with the elevator cage first. So that way if somebody has to run out of the hole, they wouldn't unlock it and leave this person down in the bottom of the hole. So they know the rule, and uh, we contact capsule crew. And capsule crew, if you know the crew out there, and after awhile you get to know most of them. And we say we got a new guy in the cage at the bottom of the hole. And they say, "oh you want to run the missile test?" Yeah. What will happen is, we'll yell down there "get up here quick," you know, "they're going to do it, they're going to do, there's an EWOL launch." And a lot of these guys are new, like "what?" And, uh, the capsule will run the missile test. And one of the sequences that these guys know about, uh, the maintenance teams know about, just before launch, the missile nozzles do their motion check to make sure they're good to go. Then you have the first stage ignition. Well we drill that into them really hard, and uh, sure enough the capsule crew will send a missile test out. We can look up on the equipment rack and see the test light pop on, pop off. And all the sudden you'd hear the hydraulic motors start up down below. And the guys start screaming, you know, "what's going on, what's going on?" And then you can actually hear and see the nozzles move. You know, back and forth, and he's really panicking. You know, some people take it more, are more stressed out by this than others, and then, you know, determining how bad they are, we'll say, "now look, what do you got in your hand or your pocket?" And they'll go, "what do you mean?" "You got the key, right?" "Yeah." "What did we tell you?" "Well, this is a missile test." And the guy goes "okay, okay," but he can't launch with the key installed and he'd got the other part of it in his pocket. But he doesn't think of that. So he's in a panic, ready to climb up this tube by hand if he has to. But that was some of the ways we'd kinda break up the monotony. It sounds kind of weird to some folks, but that's how we did our, had our fun.

RH: Yea. Well I'm sure there was a lot of that. Um, to get back to the comparisons between our systems and Soviet systems. You were talking how they were more user friendly. Anything else about how they were different?

AH: Pretty much they copied us. You know, I mean, if you look at our Minuteman ICBM and you look at the Soviet uh, version, they're similar in design. Um, at the time when we proliferated our Minuteman systems they, they came out with the bigger system because of accuracy and larger, I guess technology, uh, lack of technology, technological developments, like their SS-18. That was a big one. And, uh, SS-19, SS-17.

[End side one, tape one]
[Beginning of side two, tape one]

AH: As I said earlier, the biggest thing as far as user friendly is, um, a lot of our equipment was designed with a lot of safety features in there and, and the Soviets, uh, you know, studying about their equipment, um, they cut a lot of corners. And, and that's evident, uh, as, as disarmament is going on that, uh, they just can't dispose of the, you know, weapons system as easily as we can with ours. Um, that's …

RH: How was morale in your unit?

AH: The 44th Missile Wing was a unique wing from the standpoint that we were one of the few missile bases that had basically everything. We had missiles, we had bombers, we had tankers. And that gave even a heightened sense of how important our jobs were. Um, we had two thirds of the triad at Ellsworth. We couldn't get any subs in Pactola, so … [laughter] But, uh, that was very important. And, and, I can't, I can never put it in words as far as the folks at Ellsworth, because having been to other missile bases, we are a close knit group. Missiles as a whole is a very small group in the Air Force. Um, at times we're compared to the Navy's submarine force, the silent force. You don't hear much about us, you know? You always see airplanes. You always see, you know, aircraft carriers and you know fighters and stuff like that, but you didn't see much about us. All you saw was little blue trucks, every morning, almost everyday, driving out on the interstate, back roads, uh, of South Dakota. Western South Dakota. But we also realized that what we were doing was very important. And not just anybody could do it. Just from the standpoint of the security checks and the training and the constant evaluation. There is no other job that I can think of that basically you give a person of average age of twenty years old classified material and put them in charge of a nuclear weapon unsupervised. We have to trust these folks when they go to the missile field. A supervisor's not with them. The team chief will be anywhere from twenty-one to twenty-two years old. His partner, his or her partner, may be nineteen, twenty. And you've got a security guard out there with you. But here it is. You're trusting them to work on a weapons system that is part of our national defense, a national resource.

Uh, they do it day in and day out. I don't know if you can do that anywhere else. Um, it's amazing. And that breeds camaraderie. Because, just because not anybody can do that. Um, as far as …

RH: Go ahead.

AH: As far as the 44th is concerned, again, um, you can't put it into words because you go to other bases and even the folks that have been there for a long time that have come to Ellsworth, have seen the relationships we have with each other, within the 44th. Um, I, I wish you could put it into words, but you can't. It's trust. It's respect. Almost in a strange way, love, you know, for one-another.

RH: Were there times when morale seemed exceptionally high or exceptionally low?

AH: I think it went high when we got pay raises! [laughter] It went low when they didn't give us a pay raise, but we still did our job, you know? And, and, uh, when we lost somebody it went low because we were close-knit.

RH: Did, did world events affect morale?

AH: Not from what I could see. Not from my perspective. I mean, um …

RH: What about the Arms Reduction Talks?

AH: [laughs] Okay. That affected the morale. You know, basically when we got the, I was at job control when the message came out that, uh, all missiles will be saved [??], um, President Bush had given the order. Uh, first things in our minds was "well, we're out of a job!" [laughs] And then you stop and think "well, I guess that's a good thing," you know? Um, I ….

RH: Was there any, anyway that you thought it wasn't a good thing? I mean that this was your job, this was something you'd given your life to, this was important, and people in Washington had decided "we don't matter"?

AH: I don't look, I don't think it's a question that they're looking at "we don't matter." I, I just, I look at it from the standpoint that, um, let's not get too hasty about this, you know? Let's do this unilaterally, you know? Uh, and I don't, it's not, it really wasn't happening per se. You know, it's like "okay, we're going to be big about it. We're going to go ahead and safe our sorties and, um, we hope you'll reciprocate in kind," you know? Um, the obvious example, and it's been constantly stressed, and it's true, is that, um, the Soviets because their guidance system, again user friendly—not user friendly—uh, they're still targeted, okay? Our systems we can retarget pretty quick, alright? Our systems we basically re-targeted them

to somewhere in the Pacific, okay? Um, I guess somebody's got to offer the olive branch and I guess that's what we did. We offered the olive branch. And, uh, and I just hope, uh, they are honest in doing the same.

RH: Did that feeling affect morale?

AH: Yea. Because a lot of us were then wondering "where do we go from here," you know? Um, by nature, as I said earlier, missiles, the missile force is very small to begin with. Everybody knows everybody, okay? There's only, there was only six bases to go to in the continental United States, nowhere else. And, uh, we knew that when they decided to safe our sorties, the next step was, uh, deactivation just by, by our age of the weapon system. Because we knew for a fact that we were passed up on several upgrades. We got some upgrades, but not major upgrades. So, we knew that if, if, uh, world events hadn't changed, we probably would have been, uh, key-in for major upgrades. And, uh, but since they did change, what better time than to reduce costs by deactivating, um, the wings. So, you know, they deactivated Whiteman Air Force Base in Missouri, they deactivated Ellsworth Air Force Base in South Dakota, and, uh, uh, Grand Forks in, in, uh, North Dakota. So, um, I guess that's what a lot of us were thinking. "Where do we go from here?" Because it is a unique, it's a very specialized field.

RH: Um hmm.

AH: Uh, fortunately at the time, uh, talks were in the process of us merging with Space Command, which, which was good. Uh, I think, you know what I think when you say morale, now that I'm thinking about it? I think our morale kind of took a dip when we realized we were going to the Air Combat Command. Because we, basically Strategic Air Command disappeared and, and we were assigned to Air Combat Command because people didn't know what to do with us. And that's, that's I guess the morale hurter there, because we contributed all this time, basically blood, sweat, and tears, and now they don't know what to do with us so they put us with Air Combat Command, which are basically aircraft people. And aircraft people do not understand missiles. They never have and never will. Um, it is a unique environment. Whereas if an aircraft breaks you can land it anywhere. Uh, if you need to fix an aircraft, you just pull it in the hangar. You can't do that with missiles. And so it, there was some key leadership people that did realize that, "you know, it would be a good fit for us with Space Command." That, uh, that actually opened up the, uh, job market for us missileers. Because we dealt with missiles, Space Command is a perfect marriage. And, uh, that's helped us. And that's where missiles is really, is at now, with Space Command.

RH: Is that what you see as the, uh, the future for missileers is?

AH: Yes, because that. It all, you know, in missiles, there wasn't much career broadening. You, you could, if you're in missiles, you're in missiles. You couldn't go anywhere else. If you were lucky, you could get into maybe research and development at Space Lift if possible. But now with the merger, that's perfect because it allows the Space Lift people to do ICBM duty and the ICBM people to do Space Lift. And it worked out perfect from that standpoint. Job enhancement, enrichment in there.

RH: How did those of you in all the different specialties other than, um, the, the, um, launch controllers, um, look at them?

AH: [laughs] As a symbiotic relationship. Love/hate relationship.

RH: Yeah?

AH: Uh, actually, um, I have a lot of respect for the launch crew. Not because they're officers. Because of what they have to do. Uh, they have a very, I, they are from sheer boredom to sheer panic. Anything and everything that happens in the missile field is their responsibility. If there is a maintenance team on their silo, it is their responsibility. Um, if, from the sheer boredom standpoint, constantly running tests. Day in and day out. Running tests. Every time you do a crew change, you run a test. Um, verify the system's integrity. Um they constantly get message traffic. All the time. And, uh, to me that would be very, very boring. At least I get to drive out to the countryside and see a change of seasons and see some interesting things going on out there. And meet some people. Maybe you'd stop at Wall or Belle Fourche. Or whatever. Um, these guys, they'd get their crew brief in the morning. Uh, when I was in job control, I'd brief them what maintenance was going on in a certain flight area. Why it was. How it's going to affect them. And they'd get their kits and they'd go out and they'd drive and they'd do it. Go down in the hole and spend the next twenty-four hours in the hole, you know? The only thing that changed it for them was they got a radio and a TV now, you know, in the last couple of years. Before, there was none of that, you know? And actually, it changed from the standpoint, uh, before they had to use more crews. Before, they had to go out for three days, because they would be one crew out there in the hole and then they would change over to the next crew and so on and so on. Rotate around. And then they would leave on the third day. Now they're saying "okay. To improve morale, you go out twenty-four hours, you come back to base."

RH: Did you have trust in those people?

AH: Um, for the most part I had trust in them because really they couldn't do anything to, that would actually impact us. We could do things that would

impact them, but, you know, they really couldn't do anything to us. The only thing they could do to us is to keep us from getting on the site, you know? You know, uh, you know "trip so-and-so arrives at such site. Uh, Team Chief," you know, "Hall plus two," you know? And you go "Okay. Stand-by," you know and then, that was the Flight Security Controller. And then the Security Controller would call down into the capsule. And the capsule, if they're busy with all these messages and everything, you know, it's "you'll have to wait." So we're sitting there waiting, twiddling our thumbs. And then when we go on to the site itself, I have to go downstairs as the Team Chief to authenticate with the crews. "This is Team Chief so-and-so. I am ready to authenticate on page so-and-so, da-da, da-da, da-da. He goes "okay, fine. Authenticate." And then if you authenticate, and if you didn't authenticate right he goes, he could give you a second chance. He says "uh, that didn't sound right. Uh, go to your next page. Okay, I'm on page ten seventy-eight. Okay, go ahead and authenticate." So you authenticate. By rights a lot of times, they could play it to the hilt. Because they understand why we're out there. You mis-authenticate it, go ahead and back-off site. That means you have to take your stuff, drive out the gate, wait for the Security Team from the Launch Control Center, drive all the way out to your site if they're not busy on a strike, and then they verify who you are. Then the guard authenticates again. And then you drive on the site. And then you go back down to the support building. You just do the whole process over again. So what could be a, a easy half hour job could wind up being three-to-four hours.

RH: Were there certain crew members who might do that just because they were a little too by-the-book?

AH: Ah, new crews, just graduated type, you know, out of the trainer out at Vandenberg. Um, some of them were like that. But then you'll have their dep, normally their deputies when they're new, and the commander, the flight commander, will let them go the first time like that. Then they'll say "okay, look," you know? "This is what you gotta do," you know? Because we all have to work together. We really do. Um, from the maintenance standpoint, if we don't do our job, a camper team has to sit out there. Security. On that site. And that just adds more problems to things, okay? If we do our job, the camper team doesn't have to be out there. If we do our job, the launch crew has no problems. They just basically kick back, relax, no problem. Just monitor the status. But when we don't do our job and things go wrong, then they have to get involved and start calling people and explaining to people and everything else. So it's kind of a love/hate relationship all the way around.

RH: Did you have a similar kind of relationship with the security personnel?

AH: [laughs] We always gave our security folks a hard time. And I, you know, we understood why they were out there, but, you know, we always picked on them from the standpoint, you know, "if somebody really wanted to get this sortie, site here, they'd just take you out!" [laughs] And the thing is, we wouldn't know anything about it 'cause we'd be downstairs inside the launcher. And, uh, but, uh, you know, they weren't too bad. Again, you needed them there. A good security guard would actually help you pack up when you were ready to, when you were done. Because he wants to get home just as quick as you do, you know? And he will do what he has to do, uh, to keep people from interfering with you. In other words, if we are on site, excuse me, doing maintenance and somebody drives up to the site from the base or whatever, he will basically tell them "you're not coming on until, uh, the Team Chief validates, you know, authenticates you or validates who you are, you know? And that could work out both ways, you know? If it's Quality Assurance, you could make 'em really mad and they'd get real picky. Uh, or in some cases, you know, you'd get your, whatever you got to get done before they'd get on the site and start bothering you nit-picking everything to death. So, you know, they were there for a reason.

RH: There wasn't any built-in tension between people in other specialties and cops. We always hear them referred to as …

AH: Cops? [laughs] Um, actually no. When I was in Site Security Maintenance we were, we were heroes. Because as I said, when a security system fails to operate the way it's suppose to, cops have to sit on that site. Somebody has to sit on that site in the middle of nowhere. And if it's for a long-term, they have to park a camper out there. So you got two guys sitting out there watching the fence, making sure nobody comes in.

RH: But I guess you're not heroes to them if they feel you're not doing your job?

AH: Right. And you know what? That's how we, actually that's how we rate ourselves. How quickly we can get the camper teams off. You know, I remember one Christmas, um, snow was really high and there was five camper teams out there because they couldn't get the outer zone, the radar system set up. Or, actually, they went off and they wouldn't re-set. So I had to go out with my team. We volunteered to go out. And we went out there and, uh, I was single at the time and my partner was single and we figured "what the heck. We'll go out there and do it." So we drove out there and we worked on each site and on each site we worked on, we were able to get the camper team off. We made, we actually had to penetrate the site, make the adjustments to the security system within the accordance, the parameters given, and we were able to get the sites

reset. Um, what was kind of nice was, the last site we were at, um, camper teams are pretty neat because if you're out there and they said, and you tell 'em, they ask you, "can you get us off of here?" "Yeah." See, they have food. And the, well, you're going "okay. Food." What better incentive, you know? "Yea, you give me a pizza and I'll go ahead and make sure you get off this site." And we had to get out there anyway. And we would have done it anyway, too, but the food adds a little flavor to it, you know? So to speak! [laughter]

RH: So to speak!

AH: We, we get the equipment going and up and running and then they're able to get off and they'll give us a pizza or whatever, you know, already cooked, you know? They're cooking while we're working. So [laughter] I mean, everybody's getting their, whatever they need to get done.

RH: Um hmm.

AH: But as I said, the Christmas one was kind of nice because when we got back to base, uh, the camper team from one of the earlier sites we were at, uh, him and his wife were there, uh, with goodies for us. And we didn't expect that. But, uh, they basically, you know, in appreciation for what we had done, because we had volunteered to go out there to get these guys off the sites. I mean, it's ridiculous to be out there during Christmas in a, in a box, you know? And what was kind of nice about it is that the commander for the security police group, uh, recognized us too, uh, a couple weeks down the road for doing that. So we got our, you know, letters of appreciation—LOAs--and that helps in our performance ratings too.

RH: Now, officially, the Air Force claims that the lids were never blown off of the silos except for one time in a test.

AH: Yes.

RH: Is that right?

AH: Well [laughs] it, there are a lot of qualifications to that. Yes, November 6, they actually did a test fire where they actually blew the lid off, I mean a tactical launch where the lid came off and the missile actually launched out of the silo with a six-second burn and then landed in the field. Um, yes, we did blow some lids off during a test. What we called "sound" test. We have several tests that we use to verify the, the reliability of the weapon system. Uh, the most, uh, visible one, or the most interesting one is the one out at Vandenberg. We call it "FFOTE [pronounced "foot"] Shot." Uh, Functional, fully operational test and evaluation. We actually,

SAC at the time picked a missile from a site, sent it to Vandenberg with a crew, put it in a launch test silo out there in Vandenberg and actually launched it and see it go to a target in the Kwajalein Islands. Um, we had a test that, that took away a resource. Every time you did an actual "FFOTE Shot," you, you're losing a missile. They're not making a new one to replace it. So they said, "well, how are we going to test this with, without blowing a missile up or launching one?" Well, they came up with a SELM test. It's called Simulated Electronically Launched Minuteman. And what that involved was is, we'd pick a flight of ten, actually a flight, which had ten missiles in it, and we would take these test boxes and the signals that would normally go to the ordnance, to actually blow the squibs and everything, went to the box. And what would happen is, is that they would do just like the real thing, a real launch. Turn the keys, everything. Now this site is isolated from everything else. In Minuteman, everything's interconnected. Well, for SELM testing, they would isolate this flight of ten missiles, electrically from everything. And to make sure that nothing happens, they actually dig the cable up and cut the cable so a stray signal doesn't get out. So, when the launch crew turns a key, you hear the, uh, on some sorties, actually blow the umbilical. You can hear the squibs blowing off in the umbilical retract tub. Uh and the missile nozzle do its test and everything. It's just like the real thing except the missile doesn't launch out of the hole. On two tests, they actually sand, put sandbags behind the launch enclosure. And instead of doing both gas generators, in our system we have two solid propellant generators that ignite and pull the door open, they only did one. And you could actually see the door blow open and hit the sandbags. In our case, since it wasn't a test silo like Vandenberg, their door, when it blows open, hits shock absorbers and stops. Ours, if we didn't put sandbags out there and it went off the tracks, there was no way you were going to get that back on the tracks. It's over and done with! And so we did that with two of them. They actually blew the door off and it hit the sandbags and stopped.

RH: And it worked the way it was supposed to?

AH: Yes.

RH: It was just a test?
AH: Yes.

RH: It didn't ever happen, never happened accidentally?

AH: No. No. No. Well, yeah. [laughs] Not the door anyway. So …

RH: Were there other accidents that …

AH: Actually yes. And it, and I feel comfortable in saying this because there was a newspaper article back in 1976--'76, '77—the Rapid City *Journal* wrote and I wish I could find the article again. Um, there was an accident out here, uh, not a door being blown off, but a, a re-entry system was popped off. And, uh, to this day, the, uh, wing commander at that period, at that time, would not, uh, say anything about it. And I, and I tried researching it for a little while and I let it go. But that's, that actually did happen. Uh …

RH: What do you mean by a re-entry system? What does that …

AH: The actual warhead itself. Uh …

RH: Oh! Re-entry! Um hmm!

AH: What happened was is that, uh, a maintenance team was on its site and at the time there was a problem with the grounding system. And they were trying to pry a fuse out of a location and it shorted out. Now, mind you that there is no nuclear detonation or anything like that or anything close to that. Um, what happened is that the re-entry system is held on top of the missile with springs and what they call "ball locks." It's like a, it's almost like a quick release, quick release pin. The signal went in, fired the squibs off on the ball locks, and the re-entry system went "plink" and down the side of the tube. Uh, uh, they got cargo nets out and they hauled it out. And the, and, you know, at no time was there ever for a chance of nuclear yield of any kind. It just popped and went down the side of the hole. Not to the bottom. It just wedged itself up against the side of the missile because the missile tape, actually gets wider as you hit the bottom.

RH: Was it damaged?

AH: That part of the story was, was never said. But that was an article in the Rapid City *Journal.* And that was interesting to see that, that that occurred. But, uh, I only seen an article one time. Uh, I wish I would have kept that. I didn't think anything of it at the time. I thought "oh. Okay!" [laughs] That's it!

RH: We'll look for it as part of our research for this project. Other kinds of accidents? What about people dying in the line of duty?

AH: Um, actually yes. Um, more so with the security police folks. Um, whenever we'd take a re-entry system out. Well, I shouldn't say re-entry system. Re-entry system is more for Minuteman III. Ours was just called re-entry vehicle. RV. Uh, whenever we take a, uh, uh, re-entry vehicle out to the missile field or bring it back, uh, we have helicopter escort. Okay? A flying ART team. Alert Response Team. And, uh, prior to me getting here, uh, we had lost seven, uh, in Charlie Flight East on that type

of a mission. And then, uh, about in '86, '87, we lost another security team in a similar situation near Bear Butte. Um, we've, we've had, we've had loss of life in, you know, dealing, uh, with missile system. Um, for the most part it was indirect. Uh, you know, not actually working on the missile itself, but, um supporting it.

RH: Um, any serious accidents regarding missile maintenance people?

AH: Um, yeah, we've had a person on my team, um, almost lost his finger. Uh, it was serious enough we had to stop maintenance for that day and head back to base quick. Um, what had happened is, is that the secondary door was coming down. And like I said it is a big seven-and-a-half ton steel plug on a screw jack that's lowered, and somehow or another, he got his finger in between the LER one—Lower Equipment Room 1—floor and the B plug while it was still coming down. I don't know, I was putting a safety control switch key in which is part of the practice before, you know, you and he manage to put the key in. So he was, I guess he was raising the, the hatch, which is part of another process to secure the, uh, hatch for the lower equipment room, and his hand was here and the plug wasn't all the way down. And, uh, it caught his fingers. Fortunately, there was enough gap there that it didn't take his fingers off, um, but it did scrape 'em down pretty good. And, uh, so we had to get him back to the base. Uh, we've had people, um, you know, get hit, banged, smashed. Uh, nobody here to the extent of loss of life. Uh, nobody lost any limbs that I'm aware of. Um …

RH: Ever fall down the silo? I mean the inside?

AH: Um, not here fortunately. Other bases it is a different story. We had an individual almost went down. Uh, he didn't have his safety--he wasn't on my team—but he didn't have his safety belt on when they were putting the work cage in the launch tube. And one how, some way or another, he lost his footing and basically was hanging on the diving board, um, watching his life go before him or flash by him. And then, uh, fortunately the other team members saw what was happening and grabbed him and pulled him in. That was a long drop. Thing is, it's not a straight drop. There's things down there you can bang into all the way down. So …

RH: How careful were the people who were working there? Did they follow the safety regulations?

AH: I'd say about ninety-eight percent of the time we did follow safety regulations. Um, you know, we knew we were wrong in certain things when we violated them and we knew the consequences that could occur, uh, for the most part. Um, lot of times, you thought it out. You know, you just look at the situation. You know, is it worth, worth doing? Um, there

were some cases where the personal access hatch--um, that's a five ton door, concrete and steel door, it's hydraulically raised--and, uh, I had guys that initially when they'd get on my team from another team, they would do what they called "shoot the gap." When the personal access hatch just opens up like this, they would shoot the gap to get in there to start unlocking combinations on the door. Then, you know, my question to them was "What are you going to do if that door, if the pumping unit quits and decides to start closing? What do you expect me to do?" And you know, usually that struck home. Because afterwards, you stop and you think about it. Most of us, after a while, if you've been out there for a while, you know, it's not worth dying over. Not for something stupid.

RH: To save time? Is that why?

AH: To save time.

RH: Yeah.

AH: Time, time was really important to us. And the reason why it was important to us, um, missile maintenance, not missile but maintenance in general, you weren't supposed to go over twelve hours in the missile field. You needed to be back on base at your twelfth hour, down loaded and debriefed. So time was important. And the reason they, they used that time, it wasn't just arbitrary. They had, I guess, the Rand Corporation did a study, and they were saying at sixteen hours you don't want people working on stuff like this. This critical. So the rule was at twelve hours, if you're not off that site in twelve hours, um, you're going to be spending the night out there. RON--rest over night--at the nearest Launch Control Center. So you try to avoid RONs like the plague, because it kind of ruins your day. From the standpoint, that when you go out there and you do maintenance, normally you work, uh, you're scheduled to work fifteen days a month. And the reason why they work you fifteen days a month is because of the time it takes. You're prepping in the morning, you're driving into the field, you're doing you're maintenance, and then you're closing up and then you're driving all the way home. So, it can be anywhere from, you know, it could be a twelve or sixteen hour day, easy. If you're lucky, you'll be able, it will be a quick job, you get everything done, you get home and you get the next day off. And a lot of folks, including myself, we took advantage of the next days off. We went to school, worked part time, because, you know, the military was, is great and it was fun, but being young, you know, you have certain needs for, you know, finances and everything. So having a second job worked out pretty good, you know? Most of the business around Rapid at the time, and I think they still are, were flexible enough. They knew you were in the military, they knew they could count on you in the days, because you'd

give them a schedule, you know? And uh, but uh, you know, as far as, as far as RONs, you try to avoid it. You try to avoid it.

RH: Did maintenance people ever do unsafe things just out of, boredom? Play games, make up games, out of boredom?

AH: I guess unsafe is… depends on what side of the fence you're on.

RH: Um hmm.

AH: You know, for us, it may not have been unsafe. For the regular civilian, it may be "holy cow," you know? Um …

RH: Can you give me an example of it?

AH: No. [laughs] No. No. Um, well, I'll give you an example of a game we usually played. On each launch site there's a pylon. There's two pylons where the transport erector backs up and bolts down to. That's where they used to lower the missile in the hole. And one of the games is you tried jumping across in one continuous jump. I mean, you're not open an open hole or anything like that, but the thing is you'll lose your kneecaps if you miss, you know? And, and the thing is, it isn't that far. You can, you can mark it on the ground and actually jump the distance on the ground, but when you're standing up and you're looking at this other pylon and realizing that you got to make it, it becomes a whole different story, you know? Because if you miss, you could hurt, lose some knees. Um, another thing they do--missile maintenance teams love to do this. These are the guys who actually change the bombs and the guidance sections. They always get a rag, because they have a lot of time to kill when they're working on the system. I mean, they, when they're, when they are done with certain things they have to wait. So, instead of just sitting there staring at the sky or reading all the time, they'd get a bunch of rags and put together, wrap it with electrical tape, and play football on the site. Another game we played, um, "walk-the-ladder." The soft support building has a yellow ladder extension and if you're good, you get up there and you walk on them like stilts. You can walk across the site. And one of the neat skilled things to do is on the launch enclosure, there's a raised inch, inch-and-a-half steel lip. So you're walking with this ladder and the idea is to try to get the ladder leg over it without tripping over it. So, those are some of the things we'd do, um, on a regular basis.

RH: I've heard reports of people playing "chicken" with those heavy doors. The ones that were on the screw, uh, hydraulic screw, and the one clamshell door.

AH: Um, I never had it happen, but yes, I've seen the results of it. Uh, there was a, an individual, actually he was one of my supervisors [laughter] who told me "don't do this," you know? Uh, one of the things they did was, the personal access door I was telling you about, the big five ton door, um, there is a steel ridge about that high, about an inch high, and the door itself, when it closes, has a flange that goes over that ridge, basically fits over the top. And, uh, I guess him and some other folks were playing chicken and I kind of kidded him about this later on. I says, "You must have won, right?" And, uh, he kinda didn't answer one way or the other. Um, he was wearing steel toes at the time. It actually crushed the steel toe onto his toe. And so he lost his toes. Um, I, I can't explain why people do that, I mean, I don't know. You know …

RH: Did he ever tell you how he explained it to his supervisor?

AH: No, we didn't get into that, you know? We didn't get into that. Uh …

RH: Do you think it was listed officially as an accident?

AH: Uh, I, I'm sure it was. Uh …

RH: I mean would you guess that he would have been off the crew …

AH: Oh yeah. Oh yeah.

RH: if he would have admitted that it was the result of playing a game rather than …

AH: You gotta …

RH: just not paying enough attention?

AH: I guess you have to look at it as things, time, time progressed. Um, back then, I think they'd be a lot more lenient with certain things than they are now. Um, I'm not saying everything, but they figure the individual, my guess is the individual paid enough by losing his toes, you know? Nowadays, it would not take that much to end your career. It would take, I mean almost nothing to end your career. Um, I've had, well, I've had guys in a, when you're done with code pages, you're supposed to burn 'em, shred 'em up, whatever. I mean, they're not, they're not national secrets, so to speak, because, uh, unless they know your authenticator, it's just a bunch of numbers and alphabets to you. But one individual didn't destroy his code pages and just kept them in his desk drawer in his room on base, you know? And in the dormitory, anything and everything is subject to inspection if, if it's unlocked or, or open. And it happened to be open and somebody saw code pages. Well, they gave him what they call non-

judicial punishment. I mean, he didn't get kicked out of the Air Force, but he was penalized for it. Nowadays, I'm pretty sure somebody like that would be removed immediately. Um …

RH: Let's talk about the terrain. Um, how did you feel about this country out here?

AH: [laughs] Thirteen thousand five hundred square miles of nothing! [laughs] Western South Dakota! Uh, no, it was really unique. Um, I, what Ellsworth is situated pretty much right in the middle. Uh, if you go east, you got nothing but prairie, you know? Nothing! [laughter] Couple of hills here and there. Uh, Badlands made it interesting when you had to go into Delta Flight because a couple of our sites are in the Badlands area. And then …

RH: Including the one that we're working on.

AH: Right. Right. Uh, yep. Delta Nine and, and Delta One. Cactus Flat. Uh, the western South Dakota's always been beautiful. Uh, we, we, I enjoyed driving out to Kilo Flight, November [Flight], because you got the hills and you got trees and you got streams and, you know, the neat stuff. Um, you go north, again, it's kind of a mixture between prairie and western South Dakota with trees and everything. Uh, the roads? The roads actually, um, were maintained for the most part pretty well considering all the miles we drove. We drove all over the place. And we, it's easy, it's nothing for us, the group, to drive over a million miles a year. Easy, you know? Uh, my, my, I think my record for one day was four hundred and sixty miles. Because I was all the way out in Kadoka and something went wrong and we were the only team available and we drove all the way back to, uh, uh, November Flight up near Newell and everything, and then we had to drive all the way back out to Kadoka again! But, I mean that, that's just, you're frustrated and you kind of laugh about it, but you go and do it. Um, I think one of the big things, I don't know if it has anything to do with terrain, is, you do meet a lot of people on the roads. Um, we were fortunate enough to help a lot of people. And you know, that was one of the things that when, because we're scattered out, we're so distant from everything else, uh, I kinda wonder how people, oh, I'm sure they'd done it before, but how they'd survive. Because we, a lot of the electricity that's out there was put out there for the reason of the missile sites. Because I mean, you look in the middle of nowhere and there's a power pole, you know? And then the roads are maintained because the missile sites. And one of the things that was talked about when we were deactivating was "what's going to happen to the power? What's going to happen to the roads?" I don't know about the roads. It's been a while since I've driven out to any of the sites. But the power you're never going to take down. It's there. It just, it needs to be maintained. Um, but we've come across in our travels,

people have had accidents, um, that I don't, that I honestly, I truly believe if we had not been out there that they would not have been found. Um, that, that adds something to not just a job, but to say "I actually, you know, we actually helped somebody." Um, I mean we were on site before this pick-up come screeching up to the access gate and, and, uh, we were thinking "oh boy. Here comes trouble. Something's going on." Because, you know, nobody drives up the missile access gate. Guards get nervous, you know? And we had, we had just arrived there by helicopter, uh, and uh, this lady was complaining that her, her daughter was in some sort of convulsion or whatever and she just happened to see us land at the site. And so the pilot of the chopper called back to the base and they called Scott [AFB] in Illinois and they said "yea, go ahead and fly 'em." So, uh, we were able, uh, to assist them in that way. Fly them out of there. Um, kid driving his Dad's pick-up with a trailer. Jack-knifes it on New Underwood Road, middle of nowhere. "My Dad's going to kill me!" [laughs] And so we actually got out there, unhitched the trailer, got the pick-up back on the road, and we drug the trailer up on the road, and we were able to get him going again.

RH: His Dad didn't kill him!

AH: No. I don't know. [laughter] But …

RH: You saved his life!

AH: Yeah, well, you know, it's just those things that help out, you know? And going out to Bear Butte, you know, those things there. Elderly couple broke down. Bear Butte, it's dark. It's dark out there, you know? We pulled up, I don't know why we pulled up, maybe we were stupid to pull up. We, you know, western South Dakota. Friendly people. We pull up. Their VW broke down, bus had broke down, we gave the guy a ride back into Sturgis, you know? Those kind of things there, you remember, you know? We were out there, yes, to do a mission, do a job. But I think we did some things that helped the community, too.

RH: What about the weather?

AH: [laughs] What about the weather?

RH: Did it present special problems?

AH: Very special problems. You know, uh, site fences are about ten feet high. Ten-to-twelve feet high. I remember walking over a couple of them. Uh, we have a standard rule. We do not stop maintenance until it is fifty below zero. And I remember being out there at minus forty-nine, laying on my belly, trying to get into a site. Um, you couldn't drive the truck on site

because the access road is drifted over. So somebody came up with a good idea. We started issuing out little plastic sleds, you know, go to K-Mart, Wal Mart, whatever, and throw the equipment on the sleds and drag it up to the site, which worked out pretty good! Except when you're throwing like a hundred pound piece of equipment on there this sled kinda can't take it. But, uh, we'd go up to the site, climb over the fence, not climb over the fence, actually walk over the fence, and in the, uh, on the sites themselves, they had what they call a personal access hatch, not hatch, but the A-Circuit which controls access to the bigger door. You gotta dig for it! You're standing up there looking around, "where is it," you know? So you look at the security antennas, which are just, just barely sticking out, "okay, that's there, that's there, so the door's gotta be somewhere here." So we're digging. And some of these sites, if you looked at them from the air, looked like a Swiss cheese, because we were digging here "no, it's not there," and digging here. Um, and then we'd get into the site. Uh, we've been on a site when there were tornado warnings and we had to basically leave our vehicle on top side and get into the support building and close the door and wait until the warning cleared. Hail. Same thing. Uh, heavy rains. Uh, I think every kind of weather you can think of, we've been through it. Um, I remember one night, we were driving back to base, uh, with Mike Ewart and the two lieutenants. And we were coming back from the Wall area and, uh, it, we got so much snow, it was wet sticky snow, that we said it was time to RON, you know, because we just couldn't see, barely see out the truck window and everything. So we pull up to the site at a Launch Control Center and, uh, we call on the radio to the Flight Security Controller "this is trip so-and-so, we'd like to come in." The guy goes "now, who are you?" "This is trip so-and-so." "Are you sure you got the right place?" And we go "we're in an Air Force truck, we're at the right place." And the guy goes "I don't think so. You better get out of your truck and take a look." First, it was difficult to get out of the truck. We got out of the truck, it was encrusted with six inches of ice and snow. It was a big white rolling snowball. You couldn't see anything, it didn't look like a truck. And it was a good thing we pulled because, you know, our windshield wipers, like I said, quit working. Just barely peep-hole through there. The truck had so much snow on it and ice that it was weighing it down that the engine was barely pulling it along [laughs] and, uh, well, that's when we said "enough's enough." WE volunteered RON that time. It's a good thing we did, you know? Another time, high winds, very bad, uh, road was glazed over with ice, we were losing control of our vehicle, we figure we'd better stop. This was when we had the big trucks called the five tons. Very high centered, high boxed maintenance truck. We had stopped and then I was the Team Chief sitting on the passenger side and we were still moving and I told my partner "I told you to stop!" "I am stopped!" He's, you know, stomping on the brake as hard as he can. And what had happened was it was just the road was glazed over and it was such a big target the wind was actually

pushing the truck and we're going to go over the edge of the road! And, uh, fortunately there was enough, you know, plowed up snow and everything there that we actually impacted it and just kind of stopped right there. But the only problem was we were facing on-coming traffic. Fortunately, there was nobody else driving out there except us. And, uh, that was a rude awakening.

RH: Tell me about RONs. What were they like? You didn't like them.

AH: No. We didn't like them because it ruined our day. [laughs] Uh, you go into RON, you have to be there for at least eight hours, with one hour of hygiene. So you're not getting out of there until it's eight hours. When I first started, it was very boring. All you could do was play bumper pool or foosball. And if you're lucky you get TV. It's a, you know, top side facility with, uh, bedrooms in the back and you have your cook and the manager of the facility and security police, security force that's there. And the Launch Capsule Crew that's downstairs, in the launch, in the capsule. And, uh, what, what happens normally is you get up, you get on site, park your vehicle, usually we'd gas it up so you don't have to do it in the morning. We'd gas it up, um, myself, my team member would authenticate with the capsule crew, go downstairs and turn in our code pages. You can't sleep with your code pages. So we'd go downstairs in the elevator, go to the capsule crew, give 'em our code pages or any code materials that we have and they'd secure it for us and then we'd go back up topside. And then usually we'd ….

[End of side two, tape one]

[Beginning of side one, tape two]

AH: Okay. After getting the cook up, begrudgingly he, he or she would usually take orders for food. And, uh, food wasn't too bad, uh, contrary to popular belief. They weren't too bad. They were like king-size TV dinners. Um, TV dinners, you know, you have your individual, uh, holes for vegetables and, and meat and dessert and whatever else, fruit whatever. The foil packs on the Launch Control Facilities is basically you get one big pack of this—corn—another big pack of dessert, another big pack of meat or whatever. And you would have to pay for it. And, uh, they'd put 'em in the oven, they'd heat 'em up for you and, uh, you can get milk and juice and pop and, and whatever else they had. And, uh, you'd make a meal of it, you know, some of the bigger guys on a team would take, you know, two meat packs and, and three of those or whatever, you know? They, they don't really care how many you eat as long as you pay for it, you know? And what the problem was, and that was worked out over time, is that not everybody had money with them all the time when they went to the field for maintenance. So, the people who had meal cards, the folks that lived

on base, uh, who ate in the chow hall, didn't have any problems. Those of us that lived off base, uh, we had to pay for it and some of those didn't have, bring, always bring money with them. So, initially, you know, the team would get together and whoever had money would chip in for this and that and everything else. And, uh, as time went on, they realized that this was a problem and then they just went and start basically a charge account, you know? They'll send a bill right back to your squadron and this is what you'd have to pay, you know, you would pay, reimburse the squadron for any meals eaten. And, uh, but overall, like I said, the food wasn't bad. It's not great, but when you're hot or when you're cold and you're tired, you're dirty and you're hungry, anything tastes good!

RH: Did this happen most often in the winter?

AH: Um, more so from the standpoint that the weather changed, well, South Dakota, if you don't like the weather, just wait, you know, it'll change. And that's what usually happened.

RH: Was it weather conditions in the summer that caused you to do RONs?

AH: RONs were normally in the summertime are, were maintenance related. Something just didn't work out right. Um a part didn't show up. Or a part that you had with you didn't work. Um, you had to wait on another team who, who's tied up at another site. Uh, those are normally the summer time problems. Wintertime was mostly weather in addition to what happens in the summertime, you're waiting on parts and everything, but more so as wintertime, as far as weather.

RH: Were there special problems on site or getting to sites that were presented by the heat in the summer?

AH: Um, well, yeah. Your vehicle would go into vapor lock sometimes and you're just stuck in the middle of nowhere having to wait. Um, sometimes you'd overheat. Your radiator would overheat. Uh, you'd get onto the site itself, I mean, sometimes the sites, it was so hot out you could just barely touch anything, so you, you just had to take your time.

RH: Was that on top?

AH: Yea.

RH: Inside, was it always cool?

AH: Uh, inside is a standard fifty-five degrees constant, you know? And, uh, you had to make sure you had a lot of water out there because, you know, in the summertime you will lose a lot of water. Um, we had some folks pass out. And then, and then they got to the point where every now and

then on special projects, they would buy like cases of Gatorade, you know, in the summertime and make sure you had plenty of that.

RH: What about animals? Any special problems with animals on the site?

AH: Oh. Uh, yea. Um, snakes, rattlers, um mostly. Um, rabbits, rodents, uh, from a security system standpoint. Because what happens is the security system is sensitive enough if a rat or mice walks across the site, it sets off the alarm. Or after we calibrate the site, the, the field is up to certain height, uh, a rodent walks across a site and then you got an owl seeing a meal, flies through there and sets off the alarm. And there are certain areas that, certain sites that almost like clockwork, you know that it's an animal causing it. Uh, that's why the fence is up. That's why they try to make, uh, sure there's rodent barriers up there to keep the rodents off the site, but they still get in there somehow. Um, snakes? The only time we ever, snakes, okay, black widows was the other thing. Uh, the support building where you put that extension ladder on, when you put that extension ladder on and you start climbing down, you got to be real careful because a lot of times a black widow likes to build its web right near the handrails. So, uh, you're going down there and you're looking to make sure you don't, you know, disturb her. And, and then if you do see one, usually we try to get it out of there, out of the way.

RH: Anybody ever bitten?

AH: Um, not that I'm aware of. You know, as much as we've seen 'em out there, I, I've never heard of a report where somebody was bitten. Because we, you know, you always tell 'em "before you stick your hand somewhere, make sure you check before you do that." And then for the most part, people do that 'cause they don't want to get bitten. When you get in the actual support building itself, it's, it's dark, it's damp, it's warm. Uh, the black widow loves building webs in, in areas where we're supposed to check. So, you know, you always take a stick or something down there and make sure there's nothing there.

RH: There weren't any black widows in the actual missile facility were there?

AH: No. No.

RH: They couldn't get in there?

AH: No. Everything's sealed pretty tight in that area. Uh, you will see rodents and you will see snakes sometimes in the bottom of a launch tube because what happens is the launcher closure is not completely flush on where it sits. Basically, where the actual tube is, there's a big flange where the door rolls over and goes into some indents. It just sits right on

top of the tube. So there's actually room around the tube area just underneath the door. So snakes and rodents love to go in there. Well, the rodents love to go in there and the snakes know where there's food, so the snake goes in there. And then when you open the door up, you see the rodents come scurrying out all over the place, snakes running all over the place and not realizing it's trying to get out of there, or the rodent's trying to get out of there, they'd do the old swan dive into the launch tube and wind up at the bottom.

RH: And the snakes would sometimes do that too?

AH: Oh yeah. Yeah. Yeah.

RH: Did they ever cause maintenance problems by being in there?

AH: Uh, when they were still alive. [laughs] Or, you know, what happens is a lot of times we'll MMTers will get in the work cage and they'll start prepping a missile, safing it and everything. And they'll be in the launch tube with the cage when the doors coming open. And when the door's coming open if the snake decides, or the rodent decides to do a swan dive, it may land in the cage. And you'll find out who likes the snakes and who doesn't, you know! [laughter] Nobody been, ever been bitten, but you see 'em all of the sudden scream, you know, and try to kick it out of the, kick it out of the cage down to the bottom of the tube.

RH: You never had any special close encounters with a rattlesnake?

AH: Um, no. Uh, not personally. I know there's some folks out there that did, you know, because just for the fact depending on where you're working at in the launcher, you'll, you'll find, you know, snakes at. Uh, the areas that I normally worked at, uh, if a snake got in there, he was put in there, so …

RH: Any, um, interesting encounters with larger animals? Deer or cattle?

AH: [laughs] Um, [long pause] no, actually, well, we did find a cow on site once. I don't know how it got in there, but there was cow on the site. You know, it was, it was, we had a, it was a security alarm and, and, uh, we happened to be in that area. And they said "could you guys divert to that site, you know, and take a look?" Because, you know, we have our guards with us and they can run a strike on the site just as well, because their, our teams tied up at another location. "Yeah, sure." So we drive up to the site and we're looking and we're looking and say "there's a cow on there!" And, you know, the gate's closed! And couldn't, to this day, we couldn't figure out how a cow got on the site. But the cow was on the site and was setting off the alarm, you know, the Outer Zone alarm. And, that was interesting because when we got to the gate, we said "okay." We told

the FSC what the deal was and everything and he was kind of laughing about it and everything and says "Okay. Can you get rid of it?" "We'll try," you know? We opened the gate up, go in there, and the cow looks at us and like, "I'm not leaving!" [laughter] So we were, after some gentle persuasion, we were able to get it off the site and secure the site again. That was the end of that one!

RH: How would you speculate it might have gotten on the site?

AH: I have to believe somebody actually somehow put him on the site by jimmying the lock or whatever. Because, you know, the locks on the site are just like any, they're not high tech, they're just Master laminated locks. And if you really, really want to, I'm sure you could probably find a key for it and get into the site. I mean, they weren't classified or anything like that and it just wound up being there!

RH: You don't, you don't think that was Air Force personnel?

AH: I hope not! No. I mean, I, normally we don't, we'd kid around, but we don't kid around like that. That's a major issue right there. I mean that's a career ender. That's a, that's jail time there. So, you know, I don't know how it got on there. I, it was just there!

RH: [laughs] How, how would you describe your relations with the people who lived around the sites?

AH: Good and bad. Um, from my personal standpoint, you know, I, I, we never really dealt with them that much, you know? Sometimes we'd drive up the road and they'd wave at you and you'd wave back. And, and again, like I said, if we helped 'em out, they were usually thankful about that. Um, a lot of 'em were kind of like us in a sense. They were indifferent. They knew what was out there. They didn't really dwell on it, you know? I mean, when they saw the blue Air Force truck, there was some Air Force guys out there working. Uh, you know, we never got the, you know, "come on in for lemonade" or anything like that! You know, we had some encounters. I, I think that some encounters, they were negative from the standpoint that ranchers would have their cattle on the land and, uh, somehow or another the gates didn't get closed and the cattle got off the rancher's property and, you know, caused an accident or he lost a cow.

RH: And they blamed you?

AH: Yea. Because, you know, I, wrong, you know, right, wrong, or indifferent, I guess because we were the most obvious ones out there. Um, you know, you could see us in, in all hours of the night or whatever, sometimes. And, uh, I sometimes just think it was just easy for them to, to give us a hard

time, you know, saying, you know, "Your guys did this. Your guys did that." Because when you stop and think about it, who else would be out there?

RH: Did you ever run across any particular South Dakotans who just didn't like it that you were there?

AH: Um, yea, uh, up in Kilo Flight near Spearfish. Uh, there was a rancher there who didn't care for us. Uh, I don't know if he was born and raised there or not, um, he just didn't like Air Force. We had a silo on his property, I think, and, uh, he just didn't care for us being there. Um, because in a couple incidents, you know, we called back to base and he says "We, yeah, that guy there, yeah, he's always giving us a hard time" and everything.

RH: Did he confront you? Try to prevent you from doing your job?

AH: I don't think anybody did that. Uh, not personally. First, I wouldn't put up with it. Um, that's why we got the security guard there. Uh, I never had any …

RH: Was he yelling at you when you went by? I mean what caused you to call back?

AH: Well, he'd drive up to the gate, you know, and he'd come up to the access road, you know, that's deliberate because the access roads are not part of the main road. You have to come off the main road, you know, to access the access road. And, uh, sometimes some derogatory things were said and we just kind of like, you know, "whatever," you know? Our job at the time was just to make sure he doesn't try to get onto the site and find out what his intentions were and find out if he needed any help, you know, because we've had that happen. And, um, we just basically let it go at that. And I'd call back to base and say "look, this, we got so-and-so and so-and so." "Okay. Is he still there?" "No, he drove off." But they said "yeah, just, just ignore him." And that would be about, you know, pretty much the gist of it.

RH: Were you aware of any protesters who demonstrated your presence there?

AH: We tried, you know, certain, certain times of the year, uh, there were protestors out on certain sites. And what we try to do is schedule our maintenance around it. If it doesn't have to be done, then we will not go out to that sortie and work on it. If it's something that can wait for a couple days, we'll let it sit for a couple days. As long as it doesn't affect the alert rate. Yeah, we've seen it on TV where protestors up in, I think Kadoka,

you know, the Easter March, or Easter whatever group, blocking the access road.

RH: Reverend Klein.

AH: Yes. And, you know, I guess we're protecting their right so they can do that. And we understand that. You know, as, as long as it doesn't get personal, then that's fine.

RH: Did you ever even think there might have been something kind of useful in it?

AH: I never really thought about it.

RH: Thought of them as being misguided?

AH: Oh, I don't think it was misguided. I think, you know, he or she had their beliefs, you know? Um, our job was to ensure that they could express their beliefs in a, in a, you know, safe manner. In other words, as long as they're not destructive about it ...

RH: You didn't ever hear of anybody around your unit saying, you know, "we out to go out there and bust some heads?"

AH: Oh yeah. Oh yeah. Oh the cops do that all the time, you know? [laughs] They're always looking for something, you know? I mean, that's just the nature of the training, you know, be very aggressive, you know? And that's what they have to be. Um, from our standpoint, yeah, we kind of talked to 'em and it was like, you know, "just run 'em off the road or whatever, just, you know, because they're blocking the access road, just run 'em off the road or whatever," you know? But, uh, for the most part, I think most of us realized that everybody has their, you know, has got to have their say and as long as, as long as it doesn't get violent, I guess it's okay, you know? Some guys did take it personal, you know? And, and from the military, you always, when you see things like that, I think you can always, you always take it personal. Because here it is, you know, you volunteered to do a job that this individual didn't volunteer for and you're doing the best you can, you're doing what you think is right, but yet they're criticizing you. You know, basically it's like I say, "Walk a mile in my shoes before you say anything." You know? I don't, I don't make policy, you know? I don't agree with policy, but I've got to support it. I took an oath. I swore that I would defend it.

RH: Did you have any, any kinds of relations, any conflicts, uh, with Native Americans around the sites?

AH: Never! I, personally, never. I, you know, you always heard about this, you know, the story where they were going to take over a site or whatever, but never!

RH: Um hmm.

AH: I mean, that, I don't know who started that. I mean, it, I never seen it.

RH: Did you ever hear, have any contact with Native Americans who were critical of the sites or the policies?

AH: No. Um, more, more, most of the things we heard against the sites and everything were more of the ranchers that had, I'm not saying all of them—some of them were really good, you know? Well, you didn't hear anything, you know? But then there were some that were really vocal and, uh, you just kind of brush it off.

RH: Well a lot of ranchers out here just don't like the Federal Government at all!

AH: That's true. You know, and I, you know, I can't from the missile site standpoint, I don't know what the, the ins and outs of the process, you know, if land was grabbed away or negotiated or whatever. But, you know, I'm sure they got something out of it, too. So …

RH: Electricity, if nothing else.

AH: Electricity, maintained roads. Um, I understood that we were paying them a lease, too, per month for the site, for that acreage that was unproductive. You know, prairie land's unproductive anyway! So …

RH: At least not very productive!

AH: Not very productive.

RH: Um, how were race relations in your unit?

AH: Again, there's something unique about Ellsworth. I, I personally have never have experienced that, uh, in my unit or anywhere on Ellsworth. I, I, I don't know. And, uh …

RH: Did you, did you ever hear of stories about that kind of thing?

AH: Well, you can always, you always hear about somebody complaining about, uh, something from the standpoint that, uh, "Well, we don't have this here. We don't have this here because, uh, uh, it's, it's more African

American related. Uh, and I see, you know, basically sometimes I'd talk to the folks is, it's like, "you know, when you came in, you came in to do a job, you know? And granted, you don't have everything here that you would have on certain bigger cities, but there are trade offs," you know? There's good and bad. Um, don't, I think in Rapid City, or in western South Dakota, if you wear your color on your shoulder, you're gonna be, somebody's gonna knock it off. If you try to be a decent human being, productive, you won't have any problems. And it's the same thing at Ellsworth. It was the same way. Uh, I've never experienced anything, even my travels out to the missile field, you know? As a matter of fact, I got to know some of the ranchers and I was able to hunt on their property, you know? It just depends on how you present yourself. And in the military, we did, we had two things against us. You know, one, we were military. And then, two, if, you know, if you were the wrong color, yeah, that adds to it. Um, but it depends on how you present yourself. I think that's the most important part. Um, we heard other things at other bases, you know, race riots. I mean military installation, you know, I mean good grief! And when we hear it down here, it's like "What?" [laughs] I'm sure, you know, there, there, there were likes and dislikes amongst people, but I don't think it was because of color. I think it was just because "I don't like you."

RH: What about when women started coming in? Did that produce special tensions?

AH: Yea, that did. Um, again, speaking from my own personal standpoint, um, good and bad about that. Missiles at the time when I came was predominantly male, okay? The crew force, the missile launch crews, and the maintenance were predominantly male. And then, uh, they, somebody's infinite wisdom, it was to bring more and more women into the career field. Don't get me wrong. I think women are great in the career field providing they pull their own weight. In my career in missiles, I only ran across two that pulled their own weight. Um …

RH: In what way did they fail to pull their own weight? The rest of them?

AH: Uh, well, one, well, one is obvious is physical. Now, if you make an attempt, you pulled your own weight and you couldn't, and you weren't successful, you, you, were, you tried. But if you look at something and say "Well, I can't do that," then to me, you're not pulling your weight, okay? Um, I've seen both sides of the fence where a girl on a team, all she would do as a Team Chief, she would only scoop out the barrier pole caps, um, and direct the guys on the team to move this equipment, do this check, and everything else. As a Team Chief, that's a part of the function, but the other part of the function is also to become involved and know the task intimately. And the only way you're going to know it intimately is by

doing it. Day-in, day-out, when you are doing the maintenance. And, uh, I had a girl on my team and I'll, her name is Debbie Patterson. She was one of the finest, uh, female maintenance person I've ever worked with. Um, she would, she would give it her all. I mean, you couldn't ask any, I'd rather have her than a guy on a team. I mean, you can trust her, she does her best, when she tells you she's going to do this, you know it's done. Um, tough? Um, had a door come, broke off, high winds, came off the hinge. And I was looking up and just as I looked up, "Deb!" The door on the five ton door came around and caught her in the back of the head with the parka up. I mean, it spun her around. It flipped her over. And I go "Holy cow!" And I ran up there and I, you know, she was kind of starry-eyed and I says "Deb! Are you okay?" "Yeah, yeah, I'm okay, I'm okay." "Are you sure," you know? I expected, you know, to take, you know, let's go back to base, blah, blah, blah. "Are you okay? Now we can go back to base, you know?" "No, no, I'm fine." So we watched her for a little bit and she was okay. I think it was anybody else, maybe even a guy, I think, that's it.

RH: Why do you think women fail to give their all? What is it about them or their experience?

AH: I think, maybe, you know, I guess maybe at the time, was the expectations.

RH: Whose expectations? Theirs you mean?

AH: No, I think ours. The guys. Um, we, we kind of develop a standard on our own that, uh, you know, they can't lift this, they can't do that. Uh, I can do this, how come she can't, you know? Our weight limits at the time was you had to be able to lift sixty-five pounds over your head, okay? Well, when they brought women in the career field, they lowered it to fifty pounds. So, that, that's kind of an obvious thing right there. But they brought it out and saying that "Well, we don't want people to injure themselves, so we're going to lower the weight standard to sixty, fifty pounds." Okay! Whatever you say! Everybody knew. You know, we're not stupid, you know? Uh, as far as, uh, RONing is concerned, uh, [laughs] it posed some interesting problems. Because if you're, if you've got a female on your team, you've got to call in ahead to let them know that you've got a female on your team. Basically, they got to get rid of somebody out of a room. She gets a whole room to herself, okay? Uh, another girl that stands out in my mind, uh, as a, really a true team player, is, uh, the LCF was full because it was bad weather, and the Facility Manager had set up a room strictly for Deb. We'd have to sleep out in the day room on the floor, okay, because all the other rooms were full. Deb says "No. We're part of a team, we're sleeping in this room." And we worked it out like gentlemen and ladies and, and worked it out that way.

But you know, in people's minds they were saying, you know, she's a woman, she's got to have a room to herself. So like I said, some of that is self-induced, but when you have a girl that steps up to the plate and says "Look, no. We are a team. We work together. We sleep together, in a professional sense. And that's the way it should be."

RH: Do you think that is getting better over time? Problems are going away? Or getting worse?

AH: I, I think in some aspects it is getting better. Because I think, not only do men understand now, but women understand what is expected from either side and they're slowly coming to the center, I think. And that's good to see that. Um, I try to get a balance. Um, but there are still some issues that, that I guess will always bother a lot of folks because of the preferential treatment, um, and I think that's not because women ask for it, but that's just the way it is. Um, you know, most of the, I guess the most obvious example is, is pregnancy. Um, when you have, we were under the Personal Reliability Program, you know, to make sure that, um, we don't go crazy, we were stable. When you work around a weapon system, nuclear weapon system, you have to be. And for guys, if their wives [sic] were pregnant, they would keep working in the missiles field until, unless a doctor says otherwise, until maybe like the second, one or two months away from the delivery date. And then we'd bring 'em in the shop. For women, the moment they were told, that were maintenance teams, that were told they were pregnant, they stopped going to the field. And that breeds some animosity there. Um, right, wrong, or indifferent, I don't know. I think what's fair is fair. It's gotta be.

RH: For a different subject, did you have shortages of materials or things that affected your ability to do your job? Did you have the things you needed to do the job?

AH: Uh, I don't ever remember shortages. Um, by virtue of what we had to do. You know, like I said earlier, we had to maintain, uh, a minimum of ninety-eight percent alert rate. Ninety-nine is the number. Ninety-eight, people start looking for new jobs, okay? And at ninety-nine percent, to maintain ninety-nine percent, everything had to be there when it was supposed to be there. Uh, aircraft, um, if, if an aircraft was, the readiness rate was seventy-five percent, no biggie. Can't get that engine in tomorrow? Yeah, okay, we'll wait a couple days, okay? Missiles? Guidance system's down, there better be one ready to go the next day, you know? Re-entry systems? Same thing.

RH: And there always was one?

AH: Yep.

RH: Even near the end?

AH: In the end, basically, we took down each squadron, slowly but surely. Basically, like I said, how important we were is we had to report this to, to the Joint Chiefs, National Command Authority. Okay, these silos here are no longer on alert. Actually, the war plan would change then. That's how important we were. Every time we did something to a sortie, brought it down, off of alert, um, the war plan changed because we were no longer considered part of that war plan. What our targets were before now have to be picked up by somebody else.

RH: Um, do you ever think in terms of lessons about your experience? Do you think there were any positive or negative lessons that could be learned from this whole career of yours? All of the things you did and found out about?

AH: Well, from the job aspect, no. Um, you know, and, and I do look at that in retrospect, you know? I try to figure out, what would I have done differently? The only thing I could say that I would have done differently is maybe I would have started school earlier while I was in the service. That would be the only thing, really. You know, career path-wise, I was fortunate enough to have a lot of good supervisors over me, that, uh, they kept me straight and they pointed me in the right direction, you know? And that's, that's helped me out, you know, to grow professionally and personally. Um, and being in certain jobs, I was able to pass that on. That's one of the things I always made sure I did was to, to pass that information on. Um …

RH: Are there particular large problems that you faced that, you know, accomplishing your assignment or succeeding in your tasks?

AH: Well, you know, if you don't get what you want right away, I guess it always looks like a big problem. Um, but no, you know? Everything, I guess, came to me in due time. I, I, I was afforded the opportunity to prove myself and as I proved myself in different jobs, I was then moved on to other things. And, initially, when I first started out, I was impatient. You know, "How come you can't get this done today. Let's get this done. Da-da-da-da-da-da." And then as time went on, you learned that, you know, fastest is not always the best, you know? So, uh, that's, that's how I learned.

RH: Are there any personalities that you came in contact with? Any people who had, were especially memorable that you'd like to talk about?

AH: [laughs] Um, yeah. Uh, there was, there was two. My younger day, I had a guy that we went partner with. His name was Jim Rowe. Um, he always wanted to be a race car driver. I don't know why he was in missiles, but he wanted to be a race car driver. And some of the things he would do with our, with our utility truck, uh, are very questionable. Um, you know, going down the road, uh, past the posted speed limit. Putting the truck in a full side slide to make the ninety-degree turn. I mean we succeeded in doing that, but all of us were, uh, kind of nervous at the time. How would we explain this? Uh, I guess that's always in the back of your mind. How would I explain this? Uh, that was Jim Rowe. That was one, that was one of the characters I remember.

And then the other character, Bob Nally, him and I had been together for along time in the maintenance field. I say long time, it was like two years. Um, the last incident broke us up. It was better for my career and better for him. And, uh, Bob had this care-free attitude. He was very funny. Uh, but too care-free in the business that we were doing. Um, we would be going down the road and, uh, the guard would have like a bag of chips or whatever open and we're coming on this dirt road just, just north of Sturgis, and, uh, the guard would ask "Does anybody want any chips," you know? And Bob, driving on a dirt road, decides that he wants chips. So he takes his hands off the steering wheel, turns around, and we're coming up on a curve, and he reaches back there and grabs the chips. And "Bob!" you know. "Oh! Okay." And he grabs the steering wheel and we're down in the ditch, you know, and we come back out again. And, uh, we survived that one. And then another incident that Bob and I were on, you know, you'll see why they broke us up. Uh, we didn't have any problems with that one other than just him and I saying "We gotta quit doing this." Um, we were out on a crane, uh, out in Wall area. And, uh, we were driving along. I was driving, Bob was my passenger in the crane. And, uh, we were driving on a road that was an approved TE route. Transporter Erector route. It was a route that was designed to carry the missile, that structure. Well, we found out that, uh, the road wasn't as structured as we thought cause we were driving along in the crane, I was driving along in the crane and I tried to down shift and, uh, the shifter came out in my hand and I couldn't shift anymore. And, uh, we're rolling with a twenty-ton crane. There's only one thing to do is to put the brakes on and just hang on for dear life. Well, Bob, Bob saw the shifter and his eyes just opened up and he grabbed the shifter away from me and I was grabbing the steering wheel and we finally got stopped. I looked at Bob and Bob looked at me and says "Man that was lucky. We were lucky," you know? And, yea, just as we were saying this, you know, patting ourselves, you know, on the back, the, the, the crane …

[phone interruption]

AH: And Bob and I were looking at each other after we came to a successful stop and said we were lucky that we were able to stop this crane and everything. And just as we had said that, the crane all of a sudden, tilted over to the, to my side, because the road had actually broken away. And the crane just, like a big turtle, rolled on its side and laid there. And Bob is up above me and I'm looking at Bob says "How are we going to explain this one," you know? And, uh, so I unbuckled myself. Bob unbuckled himself and he came down on top of me and then we climbed out and, uh, looked at the road and you could see a crack that followed us. And it just basically gave way. And it wasn't right on the edge, which was strange. So we hoofed it up to a silo in Alpha Flight and called in to the Launch Crew. And the Launch Crew is like "Who's this?" "This is trip so-and-so, so-and-so." "What are you doing out there?" SO we told them and by then the Highway Patrol came out and everything and they looked at it. I still have the pictures, but, uh, there's a, Bob and I were standing there going "Yep. There's a big old crack following the crane." And fortunately we didn't, all they did was just replace the back cab on the, on the crane itself and, uh, it was serviceable. As a matter of fact, I thought I saw it driving around here, you know?

RH: Well there was really nothing in that that reflected badly on the two of you though.

AH: Uh, well, we were just, for some reason, every time something happened, Bob was there, you know? There was a few other incidents that, that Bob was there and they said "oh, enough's enough," you know? SO, okay, we're chancing fate here.

RH: I see. You mentioned the Highway Patrol. How were your relations with the Highway Patrol?

AH: Our relations with the Highway Patrol were pretty good. Uh, the MMTers, the people that haul, you know, hauled the RV around, uh, my understanding is that when we started this business here, it got to be tense sometimes. But that's the reason for the U.S. Marshal. The U.S. Marshal basically escorted out there because he's the ultimate law enforcement and, uh, that eliminated a lot of problems. I, a lot of times when we do run into like game checks, uh, in Wasta or whatever, we'd come back in a U van, in a maintenance van and stop because they'd say everybody's got to go through there. We'd pull in there and they would look at us. And, you know, we'd have our guard and he'd have his M-16 and everything else, you know? And "You guys don't have any game in here, do ya?" "No, we sure don't!" [laughs] I mean we don't! And, uh, they said "Ah, go on." And like at the weigh station, you know? Somebody sent out a rule saying "all vehicles will stop at the weigh station." I said "All vehicles?" "Yes. All vehicles over a certain size."

Well, I was a convoy commander with a missile behind me and, uh, I say "Hey guys. They say we gotta pull in." So we pulled in the first time and the guys at the weigh station kind of like looked out. The Highway Patrolman came out there and looked out there and he said "What are you guys stopping here for?" We got orders that says we're supposed to stop here." And the started laughing! And they said "Tell your folks back at the base, you guys don't have to stop when you got this kind of vehicle, Da-da, da-da, da-da." So, okay, they sent, sent us off. But other than that, we never really had any problems with them.

RH: Well, it doesn't appear they tried to make it harder for you, they tried to make it easier.

AH: No. No.

RH: Were there any, um, legends or stories about any of the facilities? Ghost stories? That sort of thing?

AH: Uh, Charlie Flight. Uh, near Wall. That ghost story was because of the helicopter that crashed with the seven alert, uh, ART team members. And, uh, supposedly, uh, they are out there wandering. Every now and then if a guard falls asleep at his post or whatever and gets woken up or whatever, you know? And that, that's the only legend that I've heard as far as in the missile concerned. Uh, you hear stories about, you know, cows being shot on, outside the gate because, uh, uh, when we used to do maintenance at night, the lights at the site would be on, but you couldn't see past the fence, though. And this guy would be seeing eyes coming up to the gate, you know, and he'd yell "halt!" And they'd keep coming and he'd yell "halt" and it didn't stop, so, I guess he didn't really follow procedures so he shot and killed a cow! [laughter] Found a cow on the road, you know? Um, then I think one of the most interesting things is that if you ever go out to a missile site, and it's at night, and you listen, it almost sounds like the sounds you hear on an old Star Trek. The wind going through the fence. The vibrations. The sounds.

RH: Um hmm.

AH: I mean, it's amazing. You listen, you can hear 'em. I mean, you don't really have to strain. It's there. I mean, it sounds just like Star Trek, you know? Uh, people have talked about UFOs. Um, seeing them on sites, uh, or near sites.

RH: Did you ever see any?

AH: No. I've seen a lot of shooting stars. I mean, that's about it. Because when you're out there, you're out there. I mean that's …

RH: It's dark.

AH: Yeah! I never seen so many stars. But, uh, no, it's uh, I've heard people talk about that, you know, from more than one source, so, until I see it, oh well.

RH: There were people who really believed that they had seen UFOs?

AH: Yea. Um, you know, and, and you can't really say, disprove them, you know? They saw what they saw. And having been out there in the maintenance field, you can see some interesting things out there and nobody else is going to see 'em, you know? I mean, you are in the middle of nowhere.

RH: There's something kind of spooky about that?

AH: Um, it depends, you know, what's going on at the time. If you hear threats, you know, like the base would get information about possible threats or whatever. And then you kind of, okay, because if we're doing maintenance at night, like I said, you can't see out past the fence. Um, we always felt that if somebody wanted to really take over a silo just for, just for the sake of it, they could do it. Um, it wouldn't be much of a problem. We even at times set there and planned it out ourselves.

RH: Where was the guard when you were doing maintenance at night?

AH: Uh, normally, the guard would normally do a post check. He'd walk around the fence and then he'd go back in the cab of the truck where it's usually warm, and, uh, he would either read or listen to the radio or, you know, talk back to the Flight Security Controller.

RH: Was the truck inside the fence?

AH: Yeah. Yeah. You drive onto the site, so, otherwise it's a lot of equipment to haul on.

RH: Um hmm. Do you, do you have any particular best or worst memories?

AH: Um, my, uh, best memory is when I was promoted, uh, to a Staff Sergeant, E-5. And, uh, the way they did that was scary. Uh, I had just gone out to maintenance, just done maintenance the day before. And normally if you don't get a phone call or you don't hear anything the next day, you're okay. You know everything went good. Um, I got this phone call from my supervisor saying "You need to get in here quick." And I go "what?" [laughter] And the first thing you run through mind, you go

through the check list. "I did this, I did that. I did this. Okay, everything is good. What, what is it," you know? And I asked him, I says "Well, can't it wait?" He says "No. You need to get in here now. The commander wants to see you. I can't tell you what it is. There's a problem." Uh, okay! So I put my "In uniform or out of uniform?" "It doesn't matter. Get in here." I said "oh man. When it doesn't matter, it's serious." Uh, so I came in, I was living on base at the time, I came in my commander, well, I went to my supervisor first and my supervisor and the section commander, a Captain, "I can't tell you anything, Al, we just gotta see him." And I go "oh man!" So we go up there and I'm going crazy. And, uh, my commander, I came in and reported to him. And, uh, he says, uh, "Al, my understanding is that your I.D. card is not correct." I go "What? What do you mean?" I said "What do you mean, not correct," you know? You know, he's "Let me see your I.D. card." So I showed it to him and "just like I thought. It's not correct. We're going to have to do something about that." And I go "what do you mean?" And he goes, and he looks at me and says "well, you're not a Sergeant." And I go "oh man." 'Cause when you say you're not a Sergeant, you don't think of getting promoted.

RH: Been busted!

AH: You think of being busted! [laughter] And, uh, he says, uh, "Congratulations! You've been promoted to Staff Sergeant." I go "Oh wow!" Talk about a relief! Because I did not know. And like I said, the day before we had maintenance. We had some problems out there, but we got it resolved. And I came back and I got the phone call in the morning, it's like "oh oh." I didn't even think about promotions at the time. It just, I was asleep, you know, when I got the phone call and it came in. Uh, worst time? Worst time, another part of the saga with Bob Nally and the rancher. Uh, Bob and I had gone up to Kilo Flight, that rancher I talked about earlier, and, uh, Bob and I were going to do security system maintenance. We had a whole group of people. We had cranes and everything out there. We were going to change an antenna assembly. And I went down in the support to authenticate with capsule and Bob, and I didn't know this, Bob had a .22 rifle with him. An old rickety Marlin .22. I'll never forget that. And what he did was, he climbed over the fence and he had ran out there to the field, okay? And when I come out of the support building the other guys were laughing and chuckling and I looked over there and I go "What's going on? What's funny?" "Look at Bob. He's going to go out there and try to shoot the Canadian geese out there." And I go "What?" And I go, "We got, you know, we got things that got to get done here." So …

RH: Was any part of this authorized?

AH: No! [laughter]

RH: Was it, was it, um, against regulations for him to have the .22?

AH: Not at the time.

RH: Oh?

AH: It is now! [laughter] We changed the Air Force, the SAC regulation, uh, doing this! Uh, we, I climbed over the fence and I asked him "Bob, what are you doing out here?" He says "I'm going to shoot me a geese." I says "Oh, I don't think so, I think we better get going. We need to get this thing done." And, and Bob's, "Okay. Let me take one shot." And I go "Ah, jeez," you know, "Whatever Bob, you're on your own," you know? So Bob goes and shoots and he hits one in the neck. A big one. And it's sitting there flapping on the ground, you know? And Bob drops the rifle nearby me and he takes off running after the geese and I'm sitting there "Aw, jeez, we're gonna catch it. We're gonna catch it." And, um, what happened was is that, uh, he went out there and grabbed this thing, and I mean it was big! And, I said "This is it." So I grabbed the gun and I went back to the site, you know? And Bob was bringing his geese up. And I said "Bob, what are you going to do with this thing?" you know. And Bob, just out of the corner of my eye, I saw the rancher coming out of his property and start driving up the road and coming to the gate. Now see, I don't think we helped that relationship too much on that one. And, uh, I said "Bob, get rid of the goose," you know? So Bob tries to take this big Canadian goose and tries to put it under a rock. [laughter] And that, I mean I wish I could have filmed it, because there's this big rock with this wing sticking out. And Bob pulled it up and then he flung it out into the stock pond. And then Bob met up with me at the site gate and the rancher was waiting there for us. And the rancher said "What are you doing?" And Bob said "Just looking." And I looked at Bob and the rancher said "Looks like you hurt yourself," because Bob's got all this goose blood all over him.

And needless to say, the rancher told us "You're not leaving this site until your commander comes out here." And I go "There's a career dissipation light right there," you know? So we get on the site, I call the capsule up, I told them story, we were talking to command post, they're recording everything, you know? And they said "You did what?" And I said "I didn't do anything. My partner did this and this and this." And they go "Okay. Standby. Standby." So in about thirty minutes later, helicopter comes out. The State Patrol, Highway Patrol shows up. Games, Fish, and Parks shows up. The helicopter's on the site with my squadron commander, my commander from maintenance and the security police commander. And they looked at what was going on and everything like that and Bob, I don't know how he kept his head, but he asked the Games, Fish, and Parks …

[End side one, tape two]

[Beginning of side two, tape two]

AH: Bob asked the Games, Fish and Parks to see if he could keep the goose. The Game, Fish, and Parks didn't, wasn't upset about it, he just said "No, it's a hundred dollar fine and one year no hunting." And Bob said, "Okay. Can I still keep the goose?" And the Game, Fish, and Parks said "No." Highway Patrol said "I don't even know why I'm out here," you know? So he left. And then they took us all up to Kilo One, you know, Launch Control Facility just outside of Spearfish and they made us write a statement down exactly what happened and everything, da-da,da-da,da-da. And, um, needless to say, Bob caught the brunt of it. They suspended me for, for my PRP until the end of the investigation, which was only about five days, and they brought me back on line, back to maintenance and everything. And, uh, from there, uh, they were going charge Bob with, uh, possession of a firearm and everything else that they could think of, um, but then they realized that there was nothing in the SAC regulations at the time that covers anything like that. They did change the regulation after, about a week after it happened, uh, that no personal firearms would be on site. So I guess some good came out of it. We, we changed a SAC regulation that's been in existence for I don't know how long and, uh …

RH: How did Bob explain that he'd shot the goose?

AH: Bob never really explained it to us. He just said he wanted the goose! Uh, like I said, Bob, Bob got out of the Air Force after his four years were up. And, uh, he wouldn't, well, they wouldn't let him re-enlist. [laughter] And you know, like I said, when this, when this incident occurred, I could see my career. I says, "you know, I was planning on making the Air Force my career," you know? Uh, fortunately, those above me saw that this was just an incident that I had no control over and, uh, everybody else stated that fact, too. Um, and that was the end of it. But like I said, that's where Bob and I were definitely broken up and said "you're not, you guys aren't together anymore." So …

RH: Any other comments you want to make?

AH: Um, general comments you mean?

RH: Anything you want to say. This is …

AH: I …

RH: This is the end.

AH: Okay. I think this project's important just from the standpoint that a lot of us, as I said, really have spent a lot of time, um, maintaining something that we hope, for the most part, most of us hope will never have to be used. It's kinda, kinda strange, but, um, we understood the ramifications if, if we ever did have to use it. And, um, just recently, they've recognized that we have made a significant contribution to world peace in that they're offering a Cold War certificate for those of us who have been in that era. They didn't single us out missiles specifically, um, but, uh, it, it's something. I think the most perfect, uh, saying I've ever seen was from the, uh, was it Sung Tu's *Art of War?* Talking about, uh, someday there would be a warrior, uh, so powerful, so strong, that, uh, nobody would be willing to fight. And that particular war would be won without shedding a single drop of blood. And that's, that's the war we fought. Um, that's a tough war. It's, it's easy to have a war when you're fighting against somebody physically, because you're actually duking it out. But when you talk about, in our business, it was more psychological. Um, yes, we were ready. Um, most all of us made a commitment, you know? Those of us that stayed in for a career in this career field, uh, realize that someday, hopefully never, that, uh, this system could be used. Uh, but if it should have, if it had to be used, we wanted to make sure that it did work. Um, and as far as, you know, the project here is concerned, I, I hope, uh, the Launch Control Facility, I hope the Launch Control, uh, Center, are maintained to such a point that, uh, anybody who shows up will get a, uh, true feeling of what went on. Uh, it's important. Um, because someday, hopefully, you know, all these sites will be gone except for the, you know, museum. And, uh, that is a significant part of our history.

RH: Thanks, Al. This, this formally concludes our interview.